

July 24, 2020

Report to:

Lynda Lombardi

Wood - E&I Solutions, Inc.

10940 White Rock Road

Suite 190

Rancho Cordova, CA 95670

Bill to:

Ashley Shively

Wood - E&I Solutions, Inc.

10940 White Rock Rd

Ste 190

Rancho Cordova, CA 95670

Project ID:

ACZ Project ID: L57215

Lynda Lombardi:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 03, 2020 and originally reported on April 10, 2020. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L57215. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L57215. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after May 10, 2020. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.



Sue Webber has reviewed and
approved this report.



Wood - EI Solutions, Inc.

July 24, 2020

Project ID:

ACZ Project ID: L57215

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 20 miscellaneous samples from Wood - E&I Solutions, Inc. on February 3, 2020. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L57215. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times except for the following.

1. Mercury (H1) - The samples were extracted and analyzed past the hold time of 28 days. The hold time does not reset after extraction.
2. Cyanide (H1) - The MWMT extraction was performed past hold however, samples were prepped and analyzed by Wet Chemistry department within the post extraction hold time.
3. Nitrate/Nitrite (H1) - Sample analysis performed past the 48 hour past extraction holding time. They were not on the LIMS backlog until past hold.
4. Nitrogen, T. Kjeldahl (HD), Nitrite, Chloride, Sulfate - Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to analysis.

Sample Analysis

These samples were analyzed for inorganic, radiochemistry parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

This project was revised on 07/24/2020 to add analysis times for pH and alkalinity. No other changes were made.

This project was revised on 05/04/2020 to correct the sample dates and times for the pH by MWMT. No other changes were made.

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_145-155

ACZ Sample ID: **L57215-01**

Date Sampled: 01/22/20 10:28

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				03/27/20 12:11	mss2
ICP MWMT Prep	M6010D ICP								03/27/20 9:53	jlw
ICPMS MWMT Prep	M6020B ICP-MS								03/27/20 5:43	enb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				03/27/20 11:18	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	03/30/20 22:56	jlw
Antimony (MWMT)	M6020B ICP-MS	1	0.0015	B	*	mg/L	0.0004	0.002	03/31/20 13:35	enb
Arsenic (MWMT)	M6020B ICP-MS	1	0.0845			mg/L	0.0002	0.001	03/31/20 13:35	enb
Barium (MWMT)	M6010D ICP	1	0.010	B	*	mg/L	0.007	0.04	03/30/20 22:56	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:35	enb
Boron (MWMT)	M6010D ICP	1	1.14			mg/L	0.02	0.1	03/30/20 22:56	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:35	enb
Calcium (MWMT)	M6010D ICP	1	3.4		*	mg/L	0.1	0.5	03/30/20 22:56	jlw
Chromium (MWMT)	M6020B ICP-MS	1	0.0008	B	*	mg/L	0.0005	0.002	03/31/20 13:35	enb
Cobalt (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:35	enb
Copper (MWMT)	M6020B ICP-MS	1	0.0053		*	mg/L	0.0008	0.002	03/31/20 13:35	enb
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	03/30/20 22:56	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:35	enb
Lithium (MWMT)	M6010D ICP	1	0.019	B	*	mg/L	0.008	0.04	03/30/20 22:56	jlw
Magnesium (MWMT)	M6010D ICP	1	0.5	B	*	mg/L	0.2	1	03/30/20 22:56	jlw
Manganese (MWMT)	M6020B ICP-MS	1	0.0014	B	*	mg/L	0.0004	0.002	03/31/20 13:35	enb
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/27/20 13:30	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.120		*	mg/L	0.0002	0.0005	03/31/20 13:35	enb
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 13:35	enb
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	03/30/20 22:56	jlw
Potassium (MWMT)	M6010D ICP	1	2.1		*	mg/L	0.2	1	03/30/20 22:56	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.001		*	mg/L	0.0001	0.0003	04/01/20 9:00	enb
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:35	enb
Sodium (MWMT)	M6010D ICP	1	139			mg/L	0.2	1	03/30/20 22:56	jlw
Strontium (MWMT)	M6010D ICP	1	0.046	B	*	mg/L	0.009	0.05	03/30/20 22:56	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:35	enb
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:35	enb
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	03/30/20 22:56	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	03/30/20 22:56	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0107		*	mg/L	0.0001	0.0005	03/31/20 13:35	enb
Vanadium (MWMT)	M6020B ICP-MS	1	0.211			mg/L	0.0005	0.002	03/31/20 13:35	enb
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 13:35	enb

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_145-155

ACZ Sample ID: **L57215-01**

Date Sampled: 01/22/20 10:28

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.8			units	0.1	0.1	03/21/20 17:45	gkh
Temperature		1	20.2			C	0.1	0.1	03/21/20 17:45	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	9.0			units	0.1	0.1	02/21/20 12:55	nnk
Temperature		1	22.3			C	0.1	0.1	02/21/20 12:55	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/21/20 0:00	gkh
Extraction pH		1	4.91			units			03/21/20 0:00	gkh
Extraction Temperature		1	23.0			C	0.1	0.1	03/21/20 0:00	gkh
Extraction Time		1	56			hrs			03/21/20 0:00	gkh
Leachate Volume		1	4547.2			mL			03/21/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/21/20 0:00	gkh
Post Filter pH		1	8.67			units			03/21/20 0:00	gkh
Pre Filter pH		1	8.76			units			03/21/20 0:00	gkh
Retained Moisture			0							SREV
Temperature		1	20.2			C	0.1	0.1	03/21/20 0:00	gkh
Time In		1							03/21/20 0:00	gkh
Time Out		1							03/21/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_145-155

ACZ Sample ID: **L57215-01**

Date Sampled: 01/22/20 10:28

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWTM)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	147		*	mg/L	2	20	03/27/20 14:57	eep
Carbonate as CaCO ₃		1	9.8	B	*	mg/L	2	20	03/27/20 14:57	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 14:57	eep
Total Alkalinity		1	157		*	mg/L	2	20	03/27/20 14:57	eep
Chloride (MWTM)	SM4500Cl-E	1	29.8		*	mg/L	0.5	2	03/27/20 10:22	wtc
Cyanide, WAD (MWTM)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	03/27/20 16:02	mss2
Fluoride (MWTM)	SM4500F-C	1	6.2		*	mg/L	0.1	0.4	04/03/20 11:05	emk
Nitrate as N (MWTM)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWTM)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	03/26/20 23:35	pjb
Nitrite as N (MWTM)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	03/26/20 23:35	pjb
Nitrogen, total Kjeldahl (MWTM)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	03/28/20 19:34	pjb
Residue, Filterable (TDS) @180C (MWTM)	SM2540C	1	410		*	mg/L	20	40	03/26/20 17:48	jck
Sulfate (MWTM)	D516-07 - Turbidimetric	5	101		*	mg/L	5	25	03/27/20 11:49	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_175-182

ACZ Sample ID: **L57215-02**

Date Sampled: 01/23/20 14:00

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				03/27/20 12:45	mss2
ICP MWMT Prep	M6010D ICP								03/27/20 10:21	jlw
ICPMS MWMT Prep	M6020B ICP-MS								03/27/20 6:12	enb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				03/27/20 12:07	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	03/30/20 23:00	jlw
Antimony (MWMT)	M6020B ICP-MS	1	0.0013	B	*	mg/L	0.0004	0.002	03/31/20 13:38	enb
Arsenic (MWMT)	M6020B ICP-MS	1	0.0744			mg/L	0.0002	0.001	03/31/20 13:38	enb
Barium (MWMT)	M6010D ICP	1	0.010	B	*	mg/L	0.007	0.04	03/30/20 23:00	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:38	enb
Boron (MWMT)	M6010D ICP	1	0.72			mg/L	0.02	0.1	03/30/20 23:00	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:38	enb
Calcium (MWMT)	M6010D ICP	1	6.0		*	mg/L	0.1	0.5	03/30/20 23:00	jlw
Chromium (MWMT)	M6020B ICP-MS	1	0.0007	B	*	mg/L	0.0005	0.002	03/31/20 13:38	enb
Cobalt (MWMT)	M6020B ICP-MS	1	0.00005	B	*	mg/L	0.00005	0.0003	03/31/20 13:38	enb
Copper (MWMT)	M6020B ICP-MS	1	0.0061		*	mg/L	0.0008	0.002	03/31/20 13:38	enb
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	03/30/20 23:00	jlw
Lead (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0005	03/31/20 13:38	enb
Lithium (MWMT)	M6010D ICP	1	0.012	B	*	mg/L	0.008	0.04	03/30/20 23:00	jlw
Magnesium (MWMT)	M6010D ICP	1	1.0		*	mg/L	0.2	1	03/30/20 23:00	jlw
Manganese (MWMT)	M6020B ICP-MS	1	0.001	B	*	mg/L	0.0004	0.002	03/31/20 13:38	enb
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/27/20 13:31	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0523		*	mg/L	0.0002	0.0005	03/31/20 13:38	enb
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 13:38	enb
Phosphorus (MWMT)	M6010D ICP	1	0.2	B	*	mg/L	0.1	0.5	03/30/20 23:00	jlw
Potassium (MWMT)	M6010D ICP	1	2.9		*	mg/L	0.2	1	03/30/20 23:00	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0011		*	mg/L	0.0001	0.0003	04/01/20 9:02	enb
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:38	enb
Sodium (MWMT)	M6010D ICP	1	81.0			mg/L	0.2	1	03/30/20 23:00	jlw
Strontium (MWMT)	M6010D ICP	1	0.060		*	mg/L	0.009	0.05	03/30/20 23:00	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:38	enb
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:38	enb
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	03/30/20 23:00	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	03/30/20 23:00	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0039		*	mg/L	0.0001	0.0005	03/31/20 13:38	enb
Vanadium (MWMT)	M6020B ICP-MS	1	0.0931			mg/L	0.0005	0.002	03/31/20 13:38	enb
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 13:38	enb

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_175-182

ACZ Sample ID: **L57215-02**

Date Sampled: 01/23/20 14:00

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.9			units	0.1	0.1	03/21/20 17:45	gkh
Temperature		1	20.1			C	0.1	0.1	03/21/20 17:45	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.4			units	0.1	0.1	02/21/20 13:00	nnk
Temperature		1	22.8			C	0.1	0.1	02/21/20 13:00	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/21/20 0:00	gkh
Extraction pH		1	4.91			units			03/21/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/21/20 0:00	gkh
Temperature										
Extraction Time		1	56			hrs			03/21/20 0:00	gkh
Leachate Volume		1	4888.4			mL			03/21/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/21/20 0:00	gkh
Post Filter pH		1	8.76			units			03/21/20 0:00	gkh
Pre Filter pH		1	8.89			units			03/21/20 0:00	gkh
Retained Moisture			0							SREV
Temperature		1	20.1			C	0.1	0.1	03/21/20 0:00	gkh
Time In		1							03/21/20 0:00	gkh
Time Out		1							03/21/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_175-182

ACZ Sample ID: **L57215-02**

Date Sampled: 01/23/20 14:00

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	99.0		*	mg/L	2	20	03/27/20 15:05	eep
Carbonate as CaCO ₃		1	30.4		*	mg/L	2	20	03/27/20 15:05	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:05	eep
Total Alkalinity		1	129		*	mg/L	2	20	03/27/20 15:05	eep
Chloride (MWMt)	SM4500Cl-E	1	16.7		*	mg/L	0.5	2	03/27/20 10:22	wtc
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	03/27/20 16:04	mss2
Fluoride (MWMt)	SM4500F-C	1	2.6		*	mg/L	0.1	0.4	04/03/20 11:09	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		2.55	H		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	2.57	H	*	mg/L	0.02	0.1	03/26/20 23:37	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	0.02	BH	*	mg/L	0.01	0.05	03/26/20 23:37	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	0.3	B	*	mg/L	0.2	0.5	03/28/20 19:36	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	264		*	mg/L	20	40	03/26/20 17:50	jck
Sulfate (MWMt)	D516-07 - Turbidimetric	5	41.7		*	mg/L	5	25	03/27/20 11:49	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_187-192

ACZ Sample ID: **L57215-03**

Date Sampled: 01/23/20 14:40

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				03/27/20 13:18	mss2
ICP MWMT Prep	M6010D ICP								03/27/20 10:49	jlw
ICPMS MWMT Prep	M6020B ICP-MS								03/27/20 6:41	enb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				03/27/20 12:32	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.06	B	*	mg/L	0.05	0.3	03/30/20 23:03	jlw
Antimony (MWMT)	M6020B ICP-MS	1	0.0012	B	*	mg/L	0.0004	0.002	03/31/20 13:41	enb
Arsenic (MWMT)	M6020B ICP-MS	1	0.0311			mg/L	0.0002	0.001	03/31/20 13:41	enb
Barium (MWMT)	M6010D ICP	1	0.027	B	*	mg/L	0.007	0.04	03/30/20 23:03	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:41	enb
Boron (MWMT)	M6010D ICP	1	0.66			mg/L	0.02	0.1	03/30/20 23:03	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:41	enb
Calcium (MWMT)	M6010D ICP	1	19.3		*	mg/L	0.1	0.5	03/30/20 23:03	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 13:41	enb
Cobalt (MWMT)	M6020B ICP-MS	1	0.00019	B	*	mg/L	0.00005	0.0003	03/31/20 13:41	enb
Copper (MWMT)	M6020B ICP-MS	1	0.0242		*	mg/L	0.0008	0.002	03/31/20 13:41	enb
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	03/30/20 23:03	jlw
Lead (MWMT)	M6020B ICP-MS	1	0.0004	B	*	mg/L	0.0001	0.0005	03/31/20 13:41	enb
Lithium (MWMT)	M6010D ICP	1	0.028	B	*	mg/L	0.008	0.04	03/30/20 23:03	jlw
Magnesium (MWMT)	M6010D ICP	1	2.4		*	mg/L	0.2	1	03/30/20 23:03	jlw
Manganese (MWMT)	M6020B ICP-MS	1	0.0073		*	mg/L	0.0004	0.002	03/31/20 13:41	enb
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/27/20 13:32	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.124		*	mg/L	0.0002	0.0005	03/31/20 13:41	enb
Nickel (MWMT)	M6020B ICP-MS	1	0.0023		*	mg/L	0.0004	0.001	03/31/20 13:41	enb
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	03/30/20 23:03	jlw
Potassium (MWMT)	M6010D ICP	1	6.3		*	mg/L	0.2	1	03/30/20 23:03	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.001		*	mg/L	0.0001	0.0003	04/01/20 9:04	enb
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:41	enb
Sodium (MWMT)	M6010D ICP	1	138			mg/L	0.2	1	03/30/20 23:03	jlw
Strontium (MWMT)	M6010D ICP	1	0.210		*	mg/L	0.009	0.05	03/30/20 23:03	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:41	enb
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:41	enb
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	03/30/20 23:03	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	03/30/20 23:03	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0065		*	mg/L	0.0001	0.0005	03/31/20 13:41	enb
Vanadium (MWMT)	M6020B ICP-MS	1	0.0554			mg/L	0.0005	0.002	03/31/20 13:41	enb
Zinc (MWMT)	M6020B ICP-MS	1	0.006	B	*	mg/L	0.006	0.02	03/31/20 13:41	enb

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_187-192

ACZ Sample ID: **L57215-03**

Date Sampled: 01/23/20 14:40

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.8			units	0.1	0.1	03/21/20 17:45	gkh
Temperature		1	20.1			C	0.1	0.1	03/21/20 17:45	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.7			units	0.1	0.1	02/21/20 13:04	nnk
Temperature		1	22.8			C	0.1	0.1	02/21/20 13:04	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/21/20 0:00	gkh
Extraction pH		1	4.91			units			03/21/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/21/20 0:00	gkh
Temperature										
Extraction Time		1	56			hrs			03/21/20 0:00	gkh
Leachate Volume		1	4777.9			mL			03/21/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/21/20 0:00	gkh
Post Filter pH		1	8.78			units			03/21/20 0:00	gkh
Pre Filter pH		1	8.83			units			03/21/20 0:00	gkh
Retained Moisture			0							SREV
Temperature		1	20.1			C	0.1	0.1	03/21/20 0:00	gkh
Time In		1							03/21/20 0:00	gkh
Time Out		1							03/21/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_187-192

ACZ Sample ID: **L57215-03**

Date Sampled: 01/23/20 14:40

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	97.1		*	mg/L	2	20	03/27/20 15:14	eep
Carbonate as CaCO ₃		1	11.3	B	*	mg/L	2	20	03/27/20 15:14	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:14	eep
Total Alkalinity		1	108		*	mg/L	2	20	03/27/20 15:14	eep
Chloride (MWMt)	SM4500Cl-E	1	30.6		*	mg/L	0.5	2	03/27/20 10:22	wtc
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	03/27/20 16:05	mss2
Fluoride (MWMt)	SM4500F-C	1	3.2		*	mg/L	0.1	0.4	04/03/20 11:12	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	03/26/20 23:39	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	03/26/20 23:39	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	0.3	B	*	mg/L	0.2	0.5	03/28/20 19:37	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	500		*	mg/L	20	40	03/26/20 17:53	jck
Sulfate (MWMt)	D516-07 - Turbidimetric	5	196		*	mg/L	5	25	03/27/20 11:49	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_197-202

ACZ Sample ID: **L57215-04**

Date Sampled: 01/27/20 15:02

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				03/27/20 13:35	mss2
ICP MWMT Prep	M6010D ICP								03/27/20 11:17	jlw
ICPMS MWMT Prep	M6020B ICP-MS								03/27/20 7:10	enb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				03/27/20 12:57	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	03/30/20 23:07	jlw
Antimony (MWMT)	M6020B ICP-MS	1	0.0013	B	*	mg/L	0.0004	0.002	03/31/20 13:44	enb
Arsenic (MWMT)	M6020B ICP-MS	1	0.0196			mg/L	0.0002	0.001	03/31/20 13:44	enb
Barium (MWMT)	M6010D ICP	1	0.032	B	*	mg/L	0.007	0.04	03/30/20 23:07	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:44	enb
Boron (MWMT)	M6010D ICP	1	0.52			mg/L	0.02	0.1	03/30/20 23:07	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:44	enb
Calcium (MWMT)	M6010D ICP	1	19.4		*	mg/L	0.1	0.5	03/30/20 23:07	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 13:44	enb
Cobalt (MWMT)	M6020B ICP-MS	1	0.00011	B	*	mg/L	0.00005	0.0003	03/31/20 13:44	enb
Copper (MWMT)	M6020B ICP-MS	1	0.0036		*	mg/L	0.0008	0.002	03/31/20 13:44	enb
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	03/30/20 23:07	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:44	enb
Lithium (MWMT)	M6010D ICP	1	0.031	B	*	mg/L	0.008	0.04	03/30/20 23:07	jlw
Magnesium (MWMT)	M6010D ICP	1	1.8		*	mg/L	0.2	1	03/30/20 23:07	jlw
Manganese (MWMT)	M6020B ICP-MS	1	0.0053		*	mg/L	0.0004	0.002	03/31/20 13:44	enb
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/27/20 13:33	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.141		*	mg/L	0.0002	0.0005	03/31/20 13:44	enb
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 13:44	enb
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	03/30/20 23:07	jlw
Potassium (MWMT)	M6010D ICP	1	8.4		*	mg/L	0.2	1	03/30/20 23:07	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0003		*	mg/L	0.0001	0.0003	04/01/20 9:06	enb
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:44	enb
Sodium (MWMT)	M6010D ICP	1	145			mg/L	0.2	1	03/30/20 23:07	jlw
Strontium (MWMT)	M6010D ICP	1	0.185		*	mg/L	0.009	0.05	03/30/20 23:07	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:44	enb
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:44	enb
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	03/30/20 23:07	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	03/30/20 23:07	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0028		*	mg/L	0.0001	0.0005	03/31/20 13:44	enb
Vanadium (MWMT)	M6020B ICP-MS	1	0.037			mg/L	0.0005	0.002	03/31/20 13:44	enb
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 13:44	enb

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_197-202

ACZ Sample ID: **L57215-04**

Date Sampled: 01/27/20 15:02

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.4			units	0.1	0.1	03/21/20 17:45	gkh
Temperature		1	20.0			C	0.1	0.1	03/21/20 17:45	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.8			units	0.1	0.1	02/21/20 13:09	nnk
Temperature		1	22.3			C	0.1	0.1	02/21/20 13:09	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/21/20 0:00	gkh
Extraction pH		1	4.91			units			03/21/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/21/20 0:00	gkh
Temperature										
Extraction Time		1	56			hrs			03/21/20 0:00	gkh
Leachate Volume		1	3970.6			mL			03/21/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/21/20 0:00	gkh
Post Filter pH		1	8.46			units			03/21/20 0:00	gkh
Pre Filter pH		1	8.42			units			03/21/20 0:00	gkh
Retained Moisture			0							SREV
Temperature		1	20.0			C	0.1	0.1	03/21/20 0:00	gkh
Time In		1							03/21/20 0:00	gkh
Time Out		1							03/21/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_197-202

ACZ Sample ID: **L57215-04**

Date Sampled: 01/27/20 15:02

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	76.8		*	mg/L	2	20	03/27/20 15:22	eep
Carbonate as CaCO ₃		1	3.9	B	*	mg/L	2	20	03/27/20 15:22	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:22	eep
Total Alkalinity		1	80.6		*	mg/L	2	20	03/27/20 15:22	eep
Chloride (MWMt)	SM4500Cl-E	10	137		*	mg/L	5	20	03/27/20 10:42	wtc
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	03/27/20 16:06	mss2
Fluoride (MWMt)	SM4500F-C	1	2.9		*	mg/L	0.1	0.4	04/03/20 11:15	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		0.17	H		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	0.34	H	*	mg/L	0.02	0.1	03/26/20 23:40	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	0.17	H	*	mg/L	0.01	0.05	03/26/20 23:40	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	0.4	B	*	mg/L	0.2	0.5	03/28/20 19:38	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	492		*	mg/L	20	40	03/26/20 17:56	jck
Sulfate (MWMt)	D516-07 - Turbidimetric	5	106		*	mg/L	5	25	03/27/20 11:49	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_0.5-3

ACZ Sample ID: **L57215-05**

Date Sampled: 01/22/20 09:18

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				03/27/20 13:52	mss2
ICP MWMT Prep	M6010D ICP								03/27/20 11:45	jlw
ICPMS MWMT Prep	M6020B ICP-MS				*				03/27/20 7:38	enb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				03/27/20 13:21	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	03/30/20 23:11	jlw
Antimony (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.002	03/31/20 13:48	enb
Arsenic (MWMT)	M6020B ICP-MS	1	0.0282			mg/L	0.0002	0.001	03/31/20 13:48	enb
Barium (MWMT)	M6010D ICP	1	0.010	B	*	mg/L	0.007	0.04	03/30/20 23:11	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:48	enb
Boron (MWMT)	M6010D ICP	1	0.14			mg/L	0.02	0.1	03/30/20 23:11	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:48	enb
Calcium (MWMT)	M6010D ICP	1	5.4		*	mg/L	0.1	0.5	03/30/20 23:11	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 13:48	enb
Cobalt (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:48	enb
Copper (MWMT)	M6020B ICP-MS	1	0.0039		*	mg/L	0.0008	0.002	03/31/20 13:48	enb
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	03/30/20 23:11	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:48	enb
Lithium (MWMT)	M6010D ICP	1	0.010	B	*	mg/L	0.008	0.04	03/30/20 23:11	jlw
Magnesium (MWMT)	M6010D ICP	1	1.0		*	mg/L	0.2	1	03/30/20 23:11	jlw
Manganese (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.002	03/31/20 13:48	enb
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/27/20 13:34	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0132		*	mg/L	0.0002	0.0005	03/31/20 13:48	enb
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 13:48	enb
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	03/30/20 23:11	jlw
Potassium (MWMT)	M6010D ICP	1	2.0		*	mg/L	0.2	1	03/30/20 23:11	jlw
Selenium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0003	04/01/20 9:07	enb
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:48	enb
Sodium (MWMT)	M6010D ICP	1	11.1			mg/L	0.2	1	03/30/20 23:11	jlw
Strontium (MWMT)	M6010D ICP	1	0.055		*	mg/L	0.009	0.05	03/30/20 23:11	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:48	enb
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:48	enb
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	03/30/20 23:11	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	03/30/20 23:11	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0019		*	mg/L	0.0001	0.0005	03/31/20 13:48	enb
Vanadium (MWMT)	M6020B ICP-MS	1	0.0222			mg/L	0.0005	0.002	03/31/20 13:48	enb
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 13:48	enb

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_0.5-3

ACZ Sample ID: **L57215-05**

Date Sampled: 01/22/20 09:18

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.2			units	0.1	0.1	03/20/20 13:20	gkh
Temperature		1	20.1			C	0.1	0.1	03/20/20 13:20	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.6			units	0.1	0.1	02/21/20 13:14	nnk
Temperature		1	22.1			C	0.1	0.1	02/21/20 13:14	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000		*	g			03/20/20 0:00	gkh
Extraction pH		1	4.91		*	units			03/20/20 0:00	gkh
Extraction		1	23.0		*	C	0.1	0.1	03/20/20 0:00	gkh
Temperature										
Extraction Time		1	27.58333		*	hrs			03/20/20 0:00	gkh
Leachate Volume		1	5012		*	mL			03/20/20 0:00	gkh
Particle Size over 5 cm		1	0		*	%			03/20/20 0:00	gkh
Post Filter pH		1	8.33		*	units			03/20/20 0:00	gkh
Pre Filter pH		1	8.17		*	units			03/20/20 0:00	gkh
Retained Moisture		1	8.87		*	%			03/20/20 0:00	gkh
Temperature		1	20.1		*	C	0.1	0.1	03/20/20 0:00	gkh
Time In		1			*				03/20/20 0:00	gkh
Time Out		1			*				03/20/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_0.5-3

ACZ Sample ID: **L57215-05**

Date Sampled: 01/22/20 09:18

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMT)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	36.5		*	mg/L	2	20	03/27/20 15:33	eep
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:33	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:33	eep
Total Alkalinity		1	37.8		*	mg/L	2	20	03/27/20 15:33	eep
Chloride (MWMT)	SM4500Cl-E	1	0.8	B	*	mg/L	0.5	2	03/27/20 10:22	wtc
Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	03/27/20 16:07	mss2
Fluoride (MWMT)	SM4500F-C	1	1.2		*	mg/L	0.1	0.4	04/03/20 11:18	emk
Nitrate as N (MWMT)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	03/26/20 23:41	pjb
Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	03/26/20 23:41	pjb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	03/28/20 19:39	pjb
Residue, Filterable (TDS) @180C (MWMT)	SM2540C	1	62		*	mg/L	20	40	03/26/20 17:59	jck
Sulfate (MWMT)	D516-07 - Turbidimetric	1	4.9	B	*	mg/L	1	5	03/27/20 11:42	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_6-15

ACZ Sample ID: **L57215-06**

Date Sampled: 01/22/20 09:38

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				03/27/20 14:09	mss2
ICP MWMT Prep	M6010D ICP								03/27/20 12:13	jlw
ICPMS MWMT Prep	M6020B ICP-MS								03/27/20 8:07	enb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				03/27/20 13:46	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.05	B	*	mg/L	0.05	0.3	03/30/20 23:15	jlw
Antimony (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.002	03/31/20 13:51	enb
Arsenic (MWMT)	M6020B ICP-MS	1	0.0222			mg/L	0.0002	0.001	03/31/20 13:51	enb
Barium (MWMT)	M6010D ICP	1	0.010	B	*	mg/L	0.007	0.04	03/30/20 23:15	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:51	enb
Boron (MWMT)	M6010D ICP	1	0.15			mg/L	0.02	0.1	03/30/20 23:15	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:51	enb
Calcium (MWMT)	M6010D ICP	1	6.7		*	mg/L	0.1	0.5	03/30/20 23:15	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 13:51	enb
Cobalt (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:51	enb
Copper (MWMT)	M6020B ICP-MS	1	0.0026		*	mg/L	0.0008	0.002	03/31/20 13:51	enb
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	03/30/20 23:15	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:51	enb
Lithium (MWMT)	M6010D ICP	1	<0.008	U	*	mg/L	0.008	0.04	03/30/20 23:15	jlw
Magnesium (MWMT)	M6010D ICP	1	1.3		*	mg/L	0.2	1	03/30/20 23:15	jlw
Manganese (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.002	03/31/20 13:51	enb
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/27/20 13:35	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0232		*	mg/L	0.0002	0.0005	03/31/20 13:51	enb
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 13:51	enb
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	03/30/20 23:15	jlw
Potassium (MWMT)	M6010D ICP	1	2.0		*	mg/L	0.2	1	03/30/20 23:15	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0004		*	mg/L	0.0001	0.0003	04/01/20 9:09	enb
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:51	enb
Sodium (MWMT)	M6010D ICP	1	17.1			mg/L	0.2	1	03/30/20 23:15	jlw
Strontium (MWMT)	M6010D ICP	1	0.068		*	mg/L	0.009	0.05	03/30/20 23:15	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:51	enb
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:51	enb
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	03/30/20 23:15	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	03/30/20 23:15	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0007		*	mg/L	0.0001	0.0005	03/31/20 13:51	enb
Vanadium (MWMT)	M6020B ICP-MS	1	0.0149			mg/L	0.0005	0.002	03/31/20 13:51	enb
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 13:51	enb

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_6-15

ACZ Sample ID: **L57215-06**

Date Sampled: 01/22/20 09:38

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.2			units	0.1	0.1	03/20/20 13:05	gkh
Temperature		1	20.9			C	0.1	0.1	03/20/20 13:05	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.5			units	0.1	0.1	02/21/20 13:18	nnk
Temperature		1	21.8			C	0.1	0.1	02/21/20 13:18	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/20/20 0:00	gkh
Extraction pH		1	4.91			units			03/20/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/20/20 0:00	gkh
Temperature										
Extraction Time		1	27.41667			hrs			03/20/20 0:00	gkh
Leachate Volume		1	5004.8			mL			03/20/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/20/20 0:00	gkh
Post Filter pH		1	8.23			units			03/20/20 0:00	gkh
Pre Filter pH		1	8.19			units			03/20/20 0:00	gkh
Retained Moisture		1	10.25			%			03/20/20 0:00	gkh
Temperature		1	20.9			C	0.1	0.1	03/20/20 0:00	gkh
Time In		1							03/20/20 0:00	gkh
Time Out		1							03/20/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_6-15

ACZ Sample ID: **L57215-06**

Date Sampled: 01/22/20 09:38

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	32.1		*	mg/L	2	20	03/27/20 15:42	eep
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:42	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:42	eep
Total Alkalinity		1	32.1		*	mg/L	2	20	03/27/20 15:42	eep
Chloride (MWMt)	SM4500Cl-E	1	3.0		*	mg/L	0.5	2	03/27/20 10:22	wtc
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	03/27/20 16:09	mss2
Fluoride (MWMt)	SM4500F-C	1	0.9		*	mg/L	0.1	0.4	04/03/20 11:21	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	03/26/20 23:43	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	03/26/20 23:43	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	03/28/20 19:40	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	92		*	mg/L	20	40	03/26/20 18:01	jck
Sulfate (MWMt)	D516-07 - Turbidimetric	1	25.1		*	mg/L	1	5	03/27/20 11:42	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_25-35

ACZ Sample ID: **L57215-07**

Date Sampled: 01/22/20 10:02

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				03/27/20 14:26	mss2
ICP MWMT Prep	M6010D ICP								03/27/20 12:41	jlw
ICPMS MWMT Prep	M6020B ICP-MS				*				03/27/20 8:36	enb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				03/27/20 14:10	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.05	B	*	mg/L	0.05	0.3	03/30/20 23:19	jlw
Antimony (MWMT)	M6020B ICP-MS	1	0.0005	B	*	mg/L	0.0004	0.002	03/31/20 14:00	enb
Arsenic (MWMT)	M6020B ICP-MS	1	0.0177			mg/L	0.0002	0.001	03/31/20 14:00	enb
Barium (MWMT)	M6010D ICP	1	<0.007	U	*	mg/L	0.007	0.04	03/30/20 23:19	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 14:00	enb
Boron (MWMT)	M6010D ICP	1	0.16			mg/L	0.02	0.1	03/30/20 23:19	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 14:00	enb
Calcium (MWMT)	M6010D ICP	1	8.2		*	mg/L	0.1	0.5	03/30/20 23:19	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 14:00	enb
Cobalt (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 14:00	enb
Copper (MWMT)	M6020B ICP-MS	1	0.0027		*	mg/L	0.0008	0.002	03/31/20 14:00	enb
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	03/30/20 23:19	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 14:00	enb
Lithium (MWMT)	M6010D ICP	1	<0.008	U	*	mg/L	0.008	0.04	03/30/20 23:19	jlw
Magnesium (MWMT)	M6010D ICP	1	1.6		*	mg/L	0.2	1	03/30/20 23:19	jlw
Manganese (MWMT)	M6020B ICP-MS	1	0.0009	B	*	mg/L	0.0004	0.002	03/31/20 14:00	enb
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/27/20 13:36	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0418		*	mg/L	0.0002	0.0005	03/31/20 14:00	enb
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 14:00	enb
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	03/30/20 23:19	jlw
Potassium (MWMT)	M6010D ICP	1	4.5		*	mg/L	0.2	1	03/30/20 23:19	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0006		*	mg/L	0.0001	0.0003	04/01/20 9:15	enb
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 14:00	enb
Sodium (MWMT)	M6010D ICP	1	19.4			mg/L	0.2	1	03/30/20 23:19	jlw
Strontium (MWMT)	M6010D ICP	1	0.077		*	mg/L	0.009	0.05	03/30/20 23:19	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 14:00	enb
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 14:00	enb
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	03/30/20 23:19	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	03/30/20 23:19	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0006		*	mg/L	0.0001	0.0005	03/31/20 14:00	enb
Vanadium (MWMT)	M6020B ICP-MS	1	0.0108			mg/L	0.0005	0.002	03/31/20 14:00	enb
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 14:00	enb

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_25-35

ACZ Sample ID: **L57215-07**

Date Sampled: 01/22/20 10:02

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.2			units	0.1	0.1	03/20/20 14:45	gkh
Temperature		1	20.0			C	0.1	0.1	03/20/20 14:45	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.4			units	0.1	0.1	02/21/20 13:23	nnk
Temperature		1	21.4			C	0.1	0.1	02/21/20 13:23	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000		*	g			03/20/20 0:00	gkh
Extraction pH		1	4.91		*	units			03/20/20 0:00	gkh
Extraction		1	23.0		*	C	0.1	0.1	03/20/20 0:00	gkh
Temperature										
Extraction Time		1	29		*	hrs			03/20/20 0:00	gkh
Leachate Volume		1	5001.5		*	mL			03/20/20 0:00	gkh
Particle Size over 5 cm		1	0		*	%			03/20/20 0:00	gkh
Post Filter pH		1	8.3		*	units			03/20/20 0:00	gkh
Pre Filter pH		1	8.22		*	units			03/20/20 0:00	gkh
Retained Moisture		1	13.25		*	%			03/20/20 0:00	gkh
Temperature		1	20.0		*	C	0.1	0.1	03/20/20 0:00	gkh
Time In		1			*				03/20/20 0:00	gkh
Time Out		1			*				03/20/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_25-35

ACZ Sample ID: **L57215-07**

Date Sampled: 01/22/20 10:02

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	35.4		*	mg/L	2	20	03/27/20 15:51	eep
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:51	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 15:51	eep
Total Alkalinity		1	35.4		*	mg/L	2	20	03/27/20 15:51	eep
Chloride (MWMt)	SM4500Cl-E	1	5.4		*	mg/L	0.5	2	03/27/20 10:22	wtc
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	03/27/20 16:10	mss2
Fluoride (MWMt)	SM4500F-C	1	1.5		*	mg/L	0.1	0.4	04/03/20 11:25	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	03/26/20 23:44	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	03/26/20 23:44	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	03/28/20 19:44	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	108		*	mg/L	20	40	03/26/20 18:04	jck
Sulfate (MWMt)	D516-07 - Turbidimetric	1	29.8		*	mg/L	1	5	03/27/20 11:42	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_65-75

ACZ Sample ID: **L57215-08**

Date Sampled: 01/22/20 11:03

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				03/27/20 14:43	mss2
ICP MWMT Prep	M6010D ICP								03/27/20 13:09	jlw
ICPMS MWMT Prep	M6020B ICP-MS								03/27/20 9:05	enb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				03/27/20 14:35	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	03/30/20 23:23	jlw
Antimony (MWMT)	M6020B ICP-MS	1	0.0008	B	*	mg/L	0.0004	0.002	03/31/20 14:03	enb
Arsenic (MWMT)	M6020B ICP-MS	1	0.0794			mg/L	0.0002	0.001	03/31/20 14:03	enb
Barium (MWMT)	M6010D ICP	1	<0.007	U	*	mg/L	0.007	0.04	03/30/20 23:23	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 14:03	enb
Boron (MWMT)	M6010D ICP	1	0.57			mg/L	0.02	0.1	03/30/20 23:23	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 14:03	enb
Calcium (MWMT)	M6010D ICP	1	4.2		*	mg/L	0.1	0.5	03/30/20 23:23	jlw
Chromium (MWMT)	M6020B ICP-MS	1	0.0005	B	*	mg/L	0.0005	0.002	03/31/20 14:03	enb
Cobalt (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 14:03	enb
Copper (MWMT)	M6020B ICP-MS	1	0.0053		*	mg/L	0.0008	0.002	03/31/20 14:03	enb
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	03/30/20 23:23	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 14:03	enb
Lithium (MWMT)	M6010D ICP	1	0.009	B	*	mg/L	0.008	0.04	03/30/20 23:23	jlw
Magnesium (MWMT)	M6010D ICP	1	0.6	B	*	mg/L	0.2	1	03/30/20 23:23	jlw
Manganese (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.002	03/31/20 14:03	enb
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/27/20 13:38	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0348		*	mg/L	0.0002	0.0005	03/31/20 14:03	enb
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 14:03	enb
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	03/30/20 23:23	jlw
Potassium (MWMT)	M6010D ICP	1	1.1		*	mg/L	0.2	1	03/30/20 23:23	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0005		*	mg/L	0.0001	0.0003	04/01/20 9:17	enb
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 14:03	enb
Sodium (MWMT)	M6010D ICP	1	70.9			mg/L	0.2	1	03/30/20 23:23	jlw
Strontium (MWMT)	M6010D ICP	1	0.048	B	*	mg/L	0.009	0.05	03/30/20 23:23	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 14:03	enb
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 14:03	enb
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	03/30/20 23:23	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	03/30/20 23:23	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0024		*	mg/L	0.0001	0.0005	03/31/20 14:03	enb
Vanadium (MWMT)	M6020B ICP-MS	1	0.232			mg/L	0.0005	0.002	03/31/20 14:03	enb
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 14:03	enb

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_65-75

ACZ Sample ID: **L57215-08**

Date Sampled: 01/22/20 11:03

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	9.0			units	0.1	0.1	03/20/20 13:55	gkh
Temperature		1	20.1			C	0.1	0.1	03/20/20 13:55	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	9.2			units	0.1	0.1	02/21/20 13:27	nnk
Temperature		1	20.7			C	0.1	0.1	02/21/20 13:27	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/20/20 0:00	gkh
Extraction pH		1	4.91			units			03/20/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/20/20 0:00	gkh
Temperature										
Extraction Time		1	28.16667			hrs			03/20/20 0:00	gkh
Leachate Volume		1	5011.7			mL			03/20/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/20/20 0:00	gkh
Post Filter pH		1	9.02			units			03/20/20 0:00	gkh
Pre Filter pH		1	9.04			units			03/20/20 0:00	gkh
Retained Moisture		1	15.73			%			03/20/20 0:00	gkh
Temperature		1	20.1			C	0.1	0.1	03/20/20 0:00	gkh
Time In		1							03/20/20 0:00	gkh
Time Out		1							03/20/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_65-75

ACZ Sample ID: **L57215-08**

Date Sampled: 01/22/20 11:03

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	88.4		*	mg/L	2	20	03/27/20 16:00	eep
Carbonate as CaCO ₃		1	24.7		*	mg/L	2	20	03/27/20 16:00	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/27/20 16:00	eep
Total Alkalinity		1	113		*	mg/L	2	20	03/27/20 16:00	eep
Chloride (MWMt)	SM4500Cl-E	1	9.6		*	mg/L	0.5	2	03/27/20 10:23	wtc
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	03/27/20 16:11	mss2
Fluoride (MWMt)	SM4500F-C	1	3.4		*	mg/L	0.1	0.4	04/03/20 11:28	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	03/26/20 23:54	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	03/26/20 23:54	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	03/28/20 19:45	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	226		*	mg/L	20	40	03/26/20 18:07	jck
Sulfate (MWMt)	D516-07 - Turbidimetric	5	31.7		*	mg/L	5	25	03/27/20 11:40	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_105-115

ACZ Sample ID: **L57215-09**

Date Sampled: 01/22/20 13:37

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 15:13	wtc
ICP MWMT Prep	M6010D ICP								03/31/20 10:13	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/30/20 15:32	mfm
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/06/20 11:15	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.15	B	*	mg/L	0.05	0.3	04/01/20 14:48	kja
Antimony (MWMT)	M6020B ICP-MS	1	0.0011	B	*	mg/L	0.0004	0.002	03/31/20 12:47	mfm
Arsenic (MWMT)	M6020B ICP-MS	1	0.0816		*	mg/L	0.0002	0.001	03/31/20 12:47	mfm
Barium (MWMT)	M6010D ICP	1	<0.007	U	*	mg/L	0.007	0.04	04/01/20 14:48	kja
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 12:47	mfm
Boron (MWMT)	M6010D ICP	1	0.57			mg/L	0.02	0.1	04/01/20 14:48	kja
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 12:47	mfm
Calcium (MWMT)	M6010D ICP	1	3.4			mg/L	0.1	0.5	04/01/20 14:48	kja
Chromium (MWMT)	M6020B ICP-MS	1	0.0006	B	*	mg/L	0.0005	0.002	03/31/20 12:47	mfm
Cobalt (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.00005	0.0003	03/31/20 12:47	mfm
Copper (MWMT)	M6020B ICP-MS	1	0.0076		*	mg/L	0.0008	0.002	03/31/20 12:47	mfm
Iron (MWMT)	M6010D ICP	1	0.11	B	*	mg/L	0.06	0.2	04/01/20 14:48	kja
Lead (MWMT)	M6020B ICP-MS	1	0.0001	B	*	mg/L	0.0001	0.0005	03/31/20 12:47	mfm
Lithium (MWMT)	M6010D ICP	1	0.009	B	*	mg/L	0.008	0.04	04/01/20 14:48	kja
Magnesium (MWMT)	M6010D ICP	1	0.6	B	*	mg/L	0.2	1	04/01/20 14:48	kja
Manganese (MWMT)	M6020B ICP-MS	1	0.0021		*	mg/L	0.0004	0.002	03/31/20 12:47	mfm
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/31/20 16:58	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0444		*	mg/L	0.0002	0.0005	03/31/20 12:47	mfm
Nickel (MWMT)	M6020B ICP-MS	1	0.0004	B	*	mg/L	0.0004	0.001	03/31/20 12:47	mfm
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	04/01/20 14:48	kja
Potassium (MWMT)	M6010D ICP	1	1.8		*	mg/L	0.2	1	04/01/20 14:48	kja
Selenium (MWMT)	M6020B ICP-MS	1	0.0004		*	mg/L	0.0001	0.0003	03/31/20 12:47	mfm
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:47	mfm
Sodium (MWMT)	M6010D ICP	1	74.0		*	mg/L	0.2	1	04/01/20 14:48	kja
Strontium (MWMT)	M6010D ICP	1	0.031	B	*	mg/L	0.009	0.05	04/01/20 14:48	kja
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:47	mfm
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 12:47	mfm
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	04/01/20 14:48	kja
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/01/20 14:48	kja
Uranium (MWMT)	M6020B ICP-MS	1	0.0055		*	mg/L	0.0001	0.0005	03/31/20 12:47	mfm
Vanadium (MWMT)	M6020B ICP-MS	1	0.291		*	mg/L	0.0005	0.002	03/31/20 12:47	mfm
Zinc (MWMT)	M6020B ICP-MS	1	0.010	B	*	mg/L	0.006	0.02	03/31/20 12:47	mfm

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_105-115

ACZ Sample ID: **L57215-09**

Date Sampled: 01/22/20 13:37

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	9.0			units	0.1	0.1	03/25/20 12:34	gkh
Temperature		1	21.1			C	0.1	0.1	03/25/20 12:34	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	9.1			units	0.1	0.1	02/21/20 13:37	nnk
Temperature		1	22.4			C	0.1	0.1	02/21/20 13:37	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000		*	g			03/25/20 0:00	gkh
Extraction pH		1	5.01		*	units			03/25/20 0:00	gkh
Extraction Temperature		1	23.0		*	C	0.1	0.1	03/25/20 0:00	gkh
Extraction Time		1	31		*	hrs			03/25/20 0:00	gkh
Leachate Volume		1	5001.7		*	mL			03/25/20 0:00	gkh
Particle Size over 5 cm		1	0		*	%			03/25/20 0:00	gkh
Post Filter pH		1	9.05		*	units			03/25/20 0:00	gkh
Pre Filter pH		1	9.03		*	units			03/25/20 0:00	gkh
Retained Moisture		1	18.26		*	%			03/25/20 0:00	gkh
Temperature		1	21.1		*	C	0.1	0.1	03/25/20 0:00	gkh
Time In		1			*				03/25/20 0:00	gkh
Time Out		1			*				03/25/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_105-115

ACZ Sample ID: **L57215-09**

Date Sampled: 01/22/20 13:37

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	105		*	mg/L	2	20	03/30/20 11:59	emk
Carbonate as CaCO ₃		1	38.3		*	mg/L	2	20	03/30/20 11:59	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 11:59	emk
Total Alkalinity		1	143		*	mg/L	2	20	03/30/20 11:59	emk
Chloride (MWMt)	SM4500Cl-E	1	7.5		*	mg/L	0.5	2	03/30/20 17:48	krh/rbt
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:31	pjb
Fluoride (MWMt)	SM4500F-C	1	3.9		*	mg/L	0.1	0.4	04/08/20 11:25	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	04/01/20 1:24	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 1:24	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	04/07/20 23:53	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	252		*	mg/L	20	40	03/30/20 11:37	nnk/emk
Sulfate (MWMt)	D516-07 - Turbidimetric	1	17.0		*	mg/L	1	5	04/01/20 9:43	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_125-135

ACZ Sample ID: **L57215-10**

Date Sampled: 01/22/20 14:58

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 15:18	wtc
ICP MWMT Prep	M6010D ICP								03/31/20 10:42	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/30/20 15:54	mfm
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/06/20 11:40	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.18	B	*	mg/L	0.05	0.3	04/01/20 14:52	kja
Antimony (MWMT)	M6020B ICP-MS	1	0.001	B	*	mg/L	0.0004	0.002	03/31/20 12:49	mfm
Arsenic (MWMT)	M6020B ICP-MS	1	0.085		*	mg/L	0.0002	0.001	03/31/20 12:49	mfm
Barium (MWMT)	M6010D ICP	1	<0.007	U	*	mg/L	0.007	0.04	04/01/20 14:52	kja
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 12:49	mfm
Boron (MWMT)	M6010D ICP	1	0.74			mg/L	0.02	0.1	04/01/20 14:52	kja
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 12:49	mfm
Calcium (MWMT)	M6010D ICP	1	1.2			mg/L	0.1	0.5	04/01/20 14:52	kja
Chromium (MWMT)	M6020B ICP-MS	1	0.0011	B	*	mg/L	0.0005	0.002	03/31/20 12:49	mfm
Cobalt (MWMT)	M6020B ICP-MS	1	0.00017	B	*	mg/L	0.00005	0.0003	03/31/20 12:49	mfm
Copper (MWMT)	M6020B ICP-MS	1	0.0067		*	mg/L	0.0008	0.002	03/31/20 12:49	mfm
Iron (MWMT)	M6010D ICP	1	0.14	B	*	mg/L	0.06	0.2	04/01/20 14:52	kja
Lead (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0005	03/31/20 12:49	mfm
Lithium (MWMT)	M6010D ICP	1	<0.008	U	*	mg/L	0.008	0.04	04/01/20 14:52	kja
Magnesium (MWMT)	M6010D ICP	1	0.2	B	*	mg/L	0.2	1	04/01/20 14:52	kja
Manganese (MWMT)	M6020B ICP-MS	1	0.0028		*	mg/L	0.0004	0.002	03/31/20 12:49	mfm
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/31/20 16:59	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0598		*	mg/L	0.0002	0.0005	03/31/20 12:49	mfm
Nickel (MWMT)	M6020B ICP-MS	1	0.0005	B	*	mg/L	0.0004	0.001	03/31/20 12:49	mfm
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	04/01/20 14:52	kja
Potassium (MWMT)	M6010D ICP	1	1.3		*	mg/L	0.2	1	04/01/20 14:52	kja
Selenium (MWMT)	M6020B ICP-MS	1	0.0003		*	mg/L	0.0001	0.0003	03/31/20 12:49	mfm
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:49	mfm
Sodium (MWMT)	M6010D ICP	1	80.0		*	mg/L	0.2	1	04/01/20 14:52	kja
Strontium (MWMT)	M6010D ICP	1	0.009	B	*	mg/L	0.009	0.05	04/01/20 14:52	kja
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:49	mfm
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 12:49	mfm
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	04/01/20 14:52	kja
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/01/20 14:52	kja
Uranium (MWMT)	M6020B ICP-MS	1	0.0086		*	mg/L	0.0001	0.0005	03/31/20 12:49	mfm
Vanadium (MWMT)	M6020B ICP-MS	1	0.262		*	mg/L	0.0005	0.002	03/31/20 12:49	mfm
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 12:49	mfm

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_125-135

ACZ Sample ID: **L57215-10**

Date Sampled: 01/22/20 14:58

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	9.1			units	0.1	0.1	03/25/20 18:17	gkh
Temperature		1	20.3			C	0.1	0.1	03/25/20 18:17	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	9.2			units	0.1	0.1	02/21/20 13:41	nnk
Temperature		1	22.0			C	0.1	0.1	02/21/20 13:41	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/25/20 0:00	gkh
Extraction pH		1	5.01			units			03/25/20 0:00	gkh
Extraction Temperature		1	23.0			C	0.1	0.1	03/25/20 0:00	gkh
Extraction Time		1	56			hrs			03/25/20 0:00	gkh
Leachate Volume		1	4925.7			mL			03/25/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/25/20 0:00	gkh
Post Filter pH		1	8.99			units			03/25/20 0:00	gkh
Pre Filter pH		1	9.07			units			03/25/20 0:00	gkh
Retained Moisture			0							SREV
Temperature		1	20.3			C	0.1	0.1	03/25/20 0:00	gkh
Time In		1							03/25/20 0:00	gkh
Time Out		1							03/25/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_125-135

ACZ Sample ID: **L57215-10**

Date Sampled: 01/22/20 14:58

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWTM)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	94.0		*	mg/L	2	20	03/30/20 12:08	emk
Carbonate as CaCO ₃		1	37.3		*	mg/L	2	20	03/30/20 12:08	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 12:08	emk
Total Alkalinity		1	131		*	mg/L	2	20	03/30/20 12:08	emk
Chloride (MWTM)	SM4500Cl-E	1	12.5		*	mg/L	0.5	2	03/30/20 17:48	krh/rbt
Cyanide, WAD (MWTM)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:32	pjb
Fluoride (MWTM)	SM4500F-C	1	3.6		*	mg/L	0.1	0.4	04/08/20 11:28	emk
Nitrate as N (MWTM)	Calculation: NO ₃ NO ₂ minus NO ₂		0.07	BH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWTM)	M353.2 - Automated Cadmium Reduction	1	0.07	BH	*	mg/L	0.02	0.1	04/01/20 1:27	pjb
Nitrite as N (MWTM)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 1:27	pjb
Nitrogen, total Kjeldahl (MWTM)	M351.2 - Block Digestor	1	0.3	B	*	mg/L	0.2	0.5	04/07/20 23:54	pjb
Residue, Filterable (TDS) @180C (MWTM)	SM2540C	1	260		*	mg/L	20	40	03/30/20 11:41	nnk/emk
Sulfate (MWTM)	D516-07 - Turbidimetric	1	27.8		*	mg/L	1	5	04/01/20 9:43	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_140-145

ACZ Sample ID: **L57215-11**

Date Sampled: 01/23/20 09:37

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 15:23	wtc
ICP MWMT Prep	M6010D ICP								03/31/20 11:11	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/30/20 16:16	mfm
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/06/20 12:05	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.11	B	*	mg/L	0.05	0.3	04/01/20 14:56	kja
Antimony (MWMT)	M6020B ICP-MS	1	0.0012	B	*	mg/L	0.0004	0.002	03/31/20 12:51	mfm
Arsenic (MWMT)	M6020B ICP-MS	1	0.0963		*	mg/L	0.0002	0.001	03/31/20 12:51	mfm
Barium (MWMT)	M6010D ICP	1	<0.007	U	*	mg/L	0.007	0.04	04/01/20 14:56	kja
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 12:51	mfm
Boron (MWMT)	M6010D ICP	1	0.59			mg/L	0.02	0.1	04/01/20 14:56	kja
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 12:51	mfm
Calcium (MWMT)	M6010D ICP	1	1.6			mg/L	0.1	0.5	04/01/20 14:56	kja
Chromium (MWMT)	M6020B ICP-MS	1	0.0008	B	*	mg/L	0.0005	0.002	03/31/20 12:51	mfm
Cobalt (MWMT)	M6020B ICP-MS	1	0.00017	B	*	mg/L	0.00005	0.0003	03/31/20 12:51	mfm
Copper (MWMT)	M6020B ICP-MS	1	0.0031		*	mg/L	0.0008	0.002	03/31/20 12:51	mfm
Iron (MWMT)	M6010D ICP	1	0.09	B	*	mg/L	0.06	0.2	04/01/20 14:56	kja
Lead (MWMT)	M6020B ICP-MS	1	0.0001	B	*	mg/L	0.0001	0.0005	03/31/20 12:51	mfm
Lithium (MWMT)	M6010D ICP	1	<0.008	U	*	mg/L	0.008	0.04	04/01/20 14:56	kja
Magnesium (MWMT)	M6010D ICP	1	0.3	B	*	mg/L	0.2	1	04/01/20 14:56	kja
Manganese (MWMT)	M6020B ICP-MS	1	0.0021		*	mg/L	0.0004	0.002	03/31/20 12:51	mfm
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/31/20 17:00	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0577		*	mg/L	0.0002	0.0005	03/31/20 12:51	mfm
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 12:51	mfm
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	04/01/20 14:56	kja
Potassium (MWMT)	M6010D ICP	1	1.7		*	mg/L	0.2	1	04/01/20 14:56	kja
Selenium (MWMT)	M6020B ICP-MS	1	0.0003		*	mg/L	0.0001	0.0003	03/31/20 12:51	mfm
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:51	mfm
Sodium (MWMT)	M6010D ICP	1	91.2		*	mg/L	0.2	1	04/01/20 14:56	kja
Strontium (MWMT)	M6010D ICP	1	0.015	B	*	mg/L	0.009	0.05	04/01/20 14:56	kja
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:51	mfm
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 12:51	mfm
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	04/01/20 14:56	kja
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/01/20 14:56	kja
Uranium (MWMT)	M6020B ICP-MS	1	0.0117		*	mg/L	0.0001	0.0005	03/31/20 12:51	mfm
Vanadium (MWMT)	M6020B ICP-MS	1	0.259		*	mg/L	0.0005	0.002	03/31/20 12:51	mfm
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 12:51	mfm

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_140-145

ACZ Sample ID: **L57215-11**

Date Sampled: 01/23/20 09:37

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	9.2			units	0.1	0.1	03/25/20 23:59	gkh
Temperature		1	20.1			C	0.1	0.1	03/25/20 23:59	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	9.2			units	0.1	0.1	02/21/20 13:46	nnk
Temperature		1	22.1			C	0.1	0.1	02/21/20 13:46	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/25/20 0:00	gkh
Extraction pH		1	5.01			units			03/25/20 0:00	gkh
Extraction Temperature		1	23.0			C	0.1	0.1	03/25/20 0:00	gkh
Extraction Time		1	56			hrs			03/25/20 0:00	gkh
Leachate Volume		1	5059.2			mL			03/25/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/25/20 0:00	gkh
Post Filter pH		1	8.98			units			03/25/20 0:00	gkh
Pre Filter pH		1	9.15			units			03/25/20 0:00	gkh
Retained Moisture			0							SREV
Temperature		1	20.1			C	0.1	0.1	03/25/20 0:00	gkh
Time In		1							03/25/20 0:00	gkh
Time Out		1							03/25/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_140-145

ACZ Sample ID: **L57215-11**

Date Sampled: 01/23/20 09:37

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMT)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	118		*	mg/L	2	20	03/30/20 12:17	emk
Carbonate as CaCO ₃		1	30.0		*	mg/L	2	20	03/30/20 12:17	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 12:17	emk
Total Alkalinity		1	148		*	mg/L	2	20	03/30/20 12:17	emk
Chloride (MWMT)	SM4500Cl-E	1	20.6		*	mg/L	0.5	2	03/30/20 17:48	krh/rbt
Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:33	pjb
Fluoride (MWMT)	SM4500F-C	1	4.3		*	mg/L	0.1	0.4	04/08/20 11:31	emk
Nitrate as N (MWMT)	Calculation: NO ₃ NO ₂ minus NO ₂		0.03	BH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	1	0.03	BH	*	mg/L	0.02	0.1	04/01/20 1:28	pjb
Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 1:28	pjb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	1	0.3	B	*	mg/L	0.2	0.5	04/07/20 23:56	pjb
Residue, Filterable (TDS) @180C (MWMT)	SM2540C	1	282		*	mg/L	20	40	03/30/20 11:46	nnk/emk
Sulfate (MWMT)	D516-07 - Turbidimetric	1	37.5		*	mg/L	1	5	04/01/20 9:43	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_150-155

ACZ Sample ID: **L57215-12**

Date Sampled: 01/23/20 09:40

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 15:28	wtc
ICP MWMT Prep	M6010D ICP								03/31/20 11:40	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/30/20 16:38	mfm
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/06/20 12:30	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	04/01/20 14:59	kja
Antimony (MWMT)	M6020B ICP-MS	1	0.0011	B	*	mg/L	0.0004	0.002	03/31/20 12:53	mfm
Arsenic (MWMT)	M6020B ICP-MS	1	0.0672		*	mg/L	0.0002	0.001	03/31/20 12:53	mfm
Barium (MWMT)	M6010D ICP	1	0.011	B	*	mg/L	0.007	0.04	04/01/20 14:59	kja
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 12:53	mfm
Boron (MWMT)	M6010D ICP	1	0.85			mg/L	0.02	0.1	04/01/20 14:59	kja
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 12:53	mfm
Calcium (MWMT)	M6010D ICP	1	11.8			mg/L	0.1	0.5	04/01/20 14:59	kja
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 12:53	mfm
Cobalt (MWMT)	M6020B ICP-MS	1	0.00041		*	mg/L	0.00005	0.0003	03/31/20 12:53	mfm
Copper (MWMT)	M6020B ICP-MS	1	0.0197		*	mg/L	0.0008	0.002	03/31/20 12:53	mfm
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	04/01/20 14:59	kja
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:53	mfm
Lithium (MWMT)	M6010D ICP	1	<0.008	U	*	mg/L	0.008	0.04	04/01/20 14:59	kja
Magnesium (MWMT)	M6010D ICP	1	1.5		*	mg/L	0.2	1	04/01/20 14:59	kja
Manganese (MWMT)	M6020B ICP-MS	1	0.0012	B	*	mg/L	0.0004	0.002	03/31/20 12:53	mfm
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/31/20 17:01	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0518		*	mg/L	0.0002	0.0005	03/31/20 12:53	mfm
Nickel (MWMT)	M6020B ICP-MS	1	0.0016		*	mg/L	0.0004	0.001	03/31/20 12:53	mfm
Phosphorus (MWMT)	M6010D ICP	1	0.3	B	*	mg/L	0.1	0.5	04/01/20 14:59	kja
Potassium (MWMT)	M6010D ICP	1	1.9		*	mg/L	0.2	1	04/01/20 14:59	kja
Selenium (MWMT)	M6020B ICP-MS	1	0.0008		*	mg/L	0.0001	0.0003	03/31/20 12:53	mfm
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:53	mfm
Sodium (MWMT)	M6010D ICP	1	113		*	mg/L	0.2	1	04/01/20 14:59	kja
Strontium (MWMT)	M6010D ICP	1	0.116		*	mg/L	0.009	0.05	04/01/20 14:59	kja
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:53	mfm
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 12:53	mfm
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	04/01/20 14:59	kja
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/01/20 14:59	kja
Uranium (MWMT)	M6020B ICP-MS	1	0.0084		*	mg/L	0.0001	0.0005	03/31/20 12:53	mfm
Vanadium (MWMT)	M6020B ICP-MS	1	0.212		*	mg/L	0.0005	0.002	03/31/20 12:53	mfm
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 12:53	mfm

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_150-155

ACZ Sample ID: **L57215-12**

Date Sampled: 01/23/20 09:40

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.9			units	0.1	0.1	03/26/20 5:42	gkh
Temperature		1	20.4			C	0.1	0.1	03/26/20 5:42	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	9.1			units	0.1	0.1	02/21/20 13:51	nnk
Temperature		1	21.6			C	0.1	0.1	02/21/20 13:51	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/25/20 0:00	gkh
Extraction pH		1	5.01			units			03/25/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/25/20 0:00	gkh
Temperature										
Extraction Time		1	48			hrs			03/25/20 0:00	gkh
Leachate Volume		1	4967.6			mL			03/25/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/25/20 0:00	gkh
Post Filter pH		1	8.93			units			03/25/20 0:00	gkh
Pre Filter pH		1	8.85			units			03/25/20 0:00	gkh
Retained Moisture		1	18.40			%			03/25/20 0:00	gkh
Temperature		1	20.4			C	0.1	0.1	03/25/20 0:00	gkh
Time In		1							03/25/20 0:00	gkh
Time Out		1							03/25/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_150-155

ACZ Sample ID: **L57215-12**

Date Sampled: 01/23/20 09:40

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	108		*	mg/L	2	20	03/30/20 12:26	emk
Carbonate as CaCO ₃		1	39.1		*	mg/L	2	20	03/30/20 12:26	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 12:26	emk
Total Alkalinity		1	148		*	mg/L	2	20	03/30/20 12:26	emk
Chloride (MWMt)	SM4500Cl-E	1	29.6		*	mg/L	0.5	2	03/30/20 17:48	krh/rbt
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:33	pjb
Fluoride (MWMt)	SM4500F-C	1	3.6		*	mg/L	0.1	0.4	04/08/20 11:34	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		8.6	H		mg/L	0.1	0.5	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	5	8.6	H	*	mg/L	0.1	0.5	04/01/20 1:41	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	0.01	BH	*	mg/L	0.01	0.05	04/01/20 1:29	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	0.9		*	mg/L	0.2	0.5	04/07/20 23:57	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	414		*	mg/L	20	40	03/30/20 11:51	nnk/emk
Sulfate (MWMt)	D516-07 - Turbidimetric	5	60.9		*	mg/L	5	25	04/01/20 10:08	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB234_0.5-3

ACZ Sample ID: **L57215-13**

Date Sampled: 01/23/20 11:38

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 15:34	wtc
ICP MWMT Prep	M6010D ICP								03/31/20 12:08	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/30/20 17:00	mfm
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/06/20 12:55	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	04/01/20 15:03	kja
Antimony (MWMT)	M6020B ICP-MS	1	0.0004	B	*	mg/L	0.0004	0.002	03/31/20 12:54	mfm
Arsenic (MWMT)	M6020B ICP-MS	1	0.0187		*	mg/L	0.0002	0.001	03/31/20 12:54	mfm
Barium (MWMT)	M6010D ICP	1	<0.007	U	*	mg/L	0.007	0.04	04/01/20 15:03	kja
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 12:54	mfm
Boron (MWMT)	M6010D ICP	1	0.31			mg/L	0.02	0.1	04/01/20 15:03	kja
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 12:54	mfm
Calcium (MWMT)	M6010D ICP	1	4.2			mg/L	0.1	0.5	04/01/20 15:03	kja
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 12:54	mfm
Cobalt (MWMT)	M6020B ICP-MS	1	0.00019	B	*	mg/L	0.00005	0.0003	03/31/20 12:54	mfm
Copper (MWMT)	M6020B ICP-MS	1	0.0087		*	mg/L	0.0008	0.002	03/31/20 12:54	mfm
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	04/01/20 15:03	kja
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:54	mfm
Lithium (MWMT)	M6010D ICP	1	<0.008	U	*	mg/L	0.008	0.04	04/01/20 15:03	kja
Magnesium (MWMT)	M6010D ICP	1	0.9	B	*	mg/L	0.2	1	04/01/20 15:03	kja
Manganese (MWMT)	M6020B ICP-MS	1	0.0011	B	*	mg/L	0.0004	0.002	03/31/20 12:54	mfm
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/31/20 17:02	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.119		*	mg/L	0.0002	0.0005	03/31/20 12:54	mfm
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 12:54	mfm
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	04/01/20 15:03	kja
Potassium (MWMT)	M6010D ICP	1	0.7	B	*	mg/L	0.2	1	04/01/20 15:03	kja
Selenium (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0003	03/31/20 12:54	mfm
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:54	mfm
Sodium (MWMT)	M6010D ICP	1	21.8		*	mg/L	0.2	1	04/01/20 15:03	kja
Strontium (MWMT)	M6010D ICP	1	0.036	B	*	mg/L	0.009	0.05	04/01/20 15:03	kja
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 12:54	mfm
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 12:54	mfm
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	04/01/20 15:03	kja
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/01/20 15:03	kja
Uranium (MWMT)	M6020B ICP-MS	1	0.0009		*	mg/L	0.0001	0.0005	03/31/20 12:54	mfm
Vanadium (MWMT)	M6020B ICP-MS	1	0.0265		*	mg/L	0.0005	0.002	03/31/20 12:54	mfm
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 12:54	mfm

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB234_0.5-3

ACZ Sample ID: **L57215-13**

Date Sampled: 01/23/20 11:38

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	7.8			units	0.1	0.1	03/26/20 11:25	gkh
Temperature		1	20.2			C	0.1	0.1	03/26/20 11:25	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.4			units	0.1	0.1	02/21/20 13:55	nnk
Temperature		1	20.8			C	0.1	0.1	02/21/20 13:55	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/25/20 0:00	gkh
Extraction pH		1	5.01			units			03/25/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/25/20 0:00	gkh
Temperature										
Extraction Time		1	28.83333			hrs			03/25/20 0:00	gkh
Leachate Volume		1	5006.6			mL			03/25/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/25/20 0:00	gkh
Post Filter pH		1	7.84			units			03/25/20 0:00	gkh
Pre Filter pH		1	7.76			units			03/25/20 0:00	gkh
Retained Moisture		1	19.25			%			03/25/20 0:00	gkh
Temperature		1	20.2			C	0.1	0.1	03/25/20 0:00	gkh
Time In		1							03/25/20 0:00	gkh
Time Out		1							03/25/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB234_0.5-3

ACZ Sample ID: **L57215-13**

Date Sampled: 01/23/20 11:38

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	32.7		*	mg/L	2	20	03/30/20 12:36	emk
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 12:36	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 12:36	emk
Total Alkalinity		1	32.7		*	mg/L	2	20	03/30/20 12:36	emk
Chloride (MWMt)	SM4500Cl-E	1	5.6		*	mg/L	0.5	2	03/30/20 17:48	krh/rbt
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:34	pjb
Fluoride (MWMt)	SM4500F-C	1	2.8		*	mg/L	0.1	0.4	04/08/20 11:37	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	04/01/20 1:31	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 1:31	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	0.2	B	*	mg/L	0.2	0.5	04/07/20 23:58	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	110		*	mg/L	20	40	03/30/20 11:56	nnk/emk
Sulfate (MWMt)	D516-07 - Turbidimetric	1	20.0		*	mg/L	1	5	04/01/20 9:43	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB234_6-15

ACZ Sample ID: **L57215-14**

Date Sampled: 01/23/20 12:00

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 15:44	wtc
ICP MWMT Prep	M6010D ICP								03/31/20 14:03	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/30/20 18:28	mfm
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/06/20 14:10	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	04/01/20 15:27	kja
Antimony (MWMT)	M6020B ICP-MS	1	0.0004	B	*	mg/L	0.0004	0.002	03/31/20 13:07	mfm
Arsenic (MWMT)	M6020B ICP-MS	1	0.0222		*	mg/L	0.0002	0.001	03/31/20 13:07	mfm
Barium (MWMT)	M6010D ICP	1	<0.007	U	*	mg/L	0.007	0.04	04/01/20 15:27	kja
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:07	mfm
Boron (MWMT)	M6010D ICP	1	0.16			mg/L	0.02	0.1	04/01/20 15:27	kja
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:07	mfm
Calcium (MWMT)	M6010D ICP	1	6.8			mg/L	0.1	0.5	04/01/20 15:27	kja
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 13:07	mfm
Cobalt (MWMT)	M6020B ICP-MS	1	0.00007	B	*	mg/L	0.00005	0.0003	03/31/20 13:07	mfm
Copper (MWMT)	M6020B ICP-MS	1	0.0037		*	mg/L	0.0008	0.002	03/31/20 13:07	mfm
Iron (MWMT)	M6010D ICP	1	<0.06	U	*	mg/L	0.06	0.2	04/01/20 15:27	kja
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:07	mfm
Lithium (MWMT)	M6010D ICP	1	<0.008	U	*	mg/L	0.008	0.04	04/01/20 15:27	kja
Magnesium (MWMT)	M6010D ICP	1	1.4		*	mg/L	0.2	1	04/01/20 15:27	kja
Manganese (MWMT)	M6020B ICP-MS	1	0.0005	B	*	mg/L	0.0004	0.002	03/31/20 13:07	mfm
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/31/20 17:07	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.018		*	mg/L	0.0002	0.0005	03/31/20 13:07	mfm
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 13:07	mfm
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	04/01/20 15:27	kja
Potassium (MWMT)	M6010D ICP	1	2.8		*	mg/L	0.2	1	04/01/20 15:27	kja
Selenium (MWMT)	M6020B ICP-MS	1	0.0003		*	mg/L	0.0001	0.0003	03/31/20 13:07	mfm
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:07	mfm
Sodium (MWMT)	M6010D ICP	1	17.8		*	mg/L	0.2	1	04/01/20 15:27	kja
Strontium (MWMT)	M6010D ICP	1	0.065		*	mg/L	0.009	0.05	04/01/20 15:27	kja
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:07	mfm
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:07	mfm
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	04/01/20 15:27	kja
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/01/20 15:27	kja
Uranium (MWMT)	M6020B ICP-MS	1	0.0006		*	mg/L	0.0001	0.0005	03/31/20 13:07	mfm
Vanadium (MWMT)	M6020B ICP-MS	1	0.0215		*	mg/L	0.0005	0.002	03/31/20 13:07	mfm
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 13:07	mfm

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB234_6-15

ACZ Sample ID: **L57215-14**

Date Sampled: 01/23/20 12:00

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.3			units	0.1	0.1	03/26/20 22:51	gkh
Temperature		1	20.4			C	0.1	0.1	03/26/20 22:51	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.5			units	0.1	0.1	02/21/20 14:05	nnk
Temperature		1	19.6			C	0.1	0.1	02/21/20 14:05	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/26/20 0:00	gkh
Extraction pH		1	5.01			units			03/26/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/26/20 0:00	gkh
Temperature										
Extraction Time		1	28.5			hrs			03/26/20 0:00	gkh
Leachate Volume		1	5018.7			mL			03/26/20 0:00	gkh
Particle Size over 5 cm		1	15.19			%			03/26/20 0:00	gkh
Post Filter pH		1	8.35			units			03/26/20 0:00	gkh
Pre Filter pH		1	8.33			units			03/26/20 0:00	gkh
Retained Moisture		1	12.81			%			03/26/20 0:00	gkh
Temperature		1	20.4			C	0.1	0.1	03/26/20 0:00	gkh
Time In		1							03/26/20 0:00	gkh
Time Out		1							03/26/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB234_6-15

ACZ Sample ID: **L57215-14**

Date Sampled: 01/23/20 12:00

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	49.4		*	mg/L	2	20	03/30/20 12:54	emk
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 12:54	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 12:54	emk
Total Alkalinity		1	49.9		*	mg/L	2	20	03/30/20 12:54	emk
Chloride (MWMt)	SM4500Cl-E	1	1.8	B	*	mg/L	0.5	2	03/30/20 17:48	krh/rbt
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:38	pjb
Fluoride (MWMt)	SM4500F-C	1	1.5		*	mg/L	0.1	0.4	04/08/20 11:49	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		0.67	H		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	0.67	H	*	mg/L	0.02	0.1	04/01/20 1:33	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 1:33	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	04/08/20 0:03	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	100		*	mg/L	20	40	03/30/20 12:05	nnk/emk
Sulfate (MWMt)	D516-07 - Turbidimetric	1	9.7		*	mg/L	1	5	04/01/20 9:45	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB223_0.5-3

ACZ Sample ID: **L57215-15**

Date Sampled: 01/23/20 13:35

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 15:49	wtc
ICP MWMT Prep	M6010D ICP								03/31/20 14:32	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/30/20 18:50	mfm
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/06/20 14:35	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	04/01/20 15:35	kja
Antimony (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.002	03/31/20 13:09	mfm
Arsenic (MWMT)	M6020B ICP-MS	1	0.0209		*	mg/L	0.0002	0.001	03/31/20 13:09	mfm
Barium (MWMT)	M6010D ICP	1	0.007	B	*	mg/L	0.007	0.04	04/01/20 15:35	kja
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:09	mfm
Boron (MWMT)	M6010D ICP	1	0.12			mg/L	0.02	0.1	04/01/20 15:35	kja
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:09	mfm
Calcium (MWMT)	M6010D ICP	1	6.0			mg/L	0.1	0.5	04/01/20 15:35	kja
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 13:09	mfm
Cobalt (MWMT)	M6020B ICP-MS	1	0.00012	B	*	mg/L	0.00005	0.0003	03/31/20 13:09	mfm
Copper (MWMT)	M6020B ICP-MS	1	0.0925		*	mg/L	0.0008	0.002	03/31/20 13:09	mfm
Iron (MWMT)	M6010D ICP	1	0.10	B	*	mg/L	0.06	0.2	04/01/20 15:35	kja
Lead (MWMT)	M6020B ICP-MS	1	0.0001	B	*	mg/L	0.0001	0.0005	03/31/20 13:09	mfm
Lithium (MWMT)	M6010D ICP	1	0.019	B	*	mg/L	0.008	0.04	04/01/20 15:35	kja
Magnesium (MWMT)	M6010D ICP	1	1.1		*	mg/L	0.2	1	04/01/20 15:35	kja
Manganese (MWMT)	M6020B ICP-MS	1	0.0007	B	*	mg/L	0.0004	0.002	03/31/20 13:09	mfm
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/31/20 17:08	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.006		*	mg/L	0.0002	0.0005	03/31/20 13:09	mfm
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 13:09	mfm
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U	*	mg/L	0.1	0.5	04/01/20 15:35	kja
Potassium (MWMT)	M6010D ICP	1	2.3		*	mg/L	0.2	1	04/01/20 15:35	kja
Selenium (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0003	03/31/20 13:09	mfm
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:09	mfm
Sodium (MWMT)	M6010D ICP	1	5.1		*	mg/L	0.2	1	04/01/20 15:35	kja
Strontium (MWMT)	M6010D ICP	1	0.053		*	mg/L	0.009	0.05	04/01/20 15:35	kja
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:09	mfm
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:09	mfm
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	04/01/20 15:35	kja
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/01/20 15:35	kja
Uranium (MWMT)	M6020B ICP-MS	1	0.0004	B	*	mg/L	0.0001	0.0005	03/31/20 13:09	mfm
Vanadium (MWMT)	M6020B ICP-MS	1	0.015		*	mg/L	0.0005	0.002	03/31/20 13:09	mfm
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 13:09	mfm

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB223_0.5-3

ACZ Sample ID: **L57215-15**

Date Sampled: 01/23/20 13:35

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	8.1			units	0.1	0.1	03/27/20 4:34	gkh
Temperature		1	20.6			C	0.1	0.1	03/27/20 4:34	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	7.9			units	0.1	0.1	02/21/20 14:09	nnk
Temperature		1	21.3			C	0.1	0.1	02/21/20 14:09	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/26/20 0:00	gkh
Extraction pH		1	5.01			units			03/26/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/26/20 0:00	gkh
Temperature										
Extraction Time		1	29.08333			hrs			03/26/20 0:00	gkh
Leachate Volume		1	5003.7			mL			03/26/20 0:00	gkh
Particle Size over 5 cm		1	14.47			%			03/26/20 0:00	gkh
Post Filter pH		1	8.09			units			03/26/20 0:00	gkh
Pre Filter pH		1	8.09			units			03/26/20 0:00	gkh
Retained Moisture		1	10.66			%			03/26/20 0:00	gkh
Temperature		1	20.6			C	0.1	0.1	03/26/20 0:00	gkh
Time In		1							03/26/20 0:00	gkh
Time Out		1							03/26/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB223_0.5-3

ACZ Sample ID: **L57215-15**

Date Sampled: 01/23/20 13:35

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWTM)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	25.1		*	mg/L	2	20	03/30/20 13:02	emk
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 13:02	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 13:02	emk
Total Alkalinity		1	25.1		*	mg/L	2	20	03/30/20 13:02	emk
Chloride (MWTM)	SM4500Cl-E	1	0.8	B	*	mg/L	0.5	2	03/30/20 17:49	krh/rbt
Cyanide, WAD (MWTM)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:39	pjb
Fluoride (MWTM)	SM4500F-C	1	0.6		*	mg/L	0.1	0.4	04/08/20 11:52	emk
Nitrate as N (MWTM)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWTM)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	04/01/20 1:39	pjb
Nitrite as N (MWTM)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 1:39	pjb
Nitrogen, total Kjeldahl (MWTM)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	04/08/20 0:05	pjb
Residue, Filterable (TDS) @180C (MWTM)	SM2540C	1	62		*	mg/L	20	40	03/30/20 12:10	nnk/emk
Sulfate (MWTM)	D516-07 - Turbidimetric	1	8.1		*	mg/L	1	5	04/01/20 9:45	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB223_6-15

ACZ Sample ID: **L57215-16**

Date Sampled: 01/23/20 13:46

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 15:55	wtc
ICP MWMT Prep	M6010D ICP								03/31/20 15:01	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/30/20 19:12	mfm
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/06/20 15:00	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U	*	mg/L	0.05	0.3	04/01/20 15:39	kja
Antimony (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.002	03/31/20 13:10	mfm
Arsenic (MWMT)	M6020B ICP-MS	1	0.0116		*	mg/L	0.0002	0.001	03/31/20 13:10	mfm
Barium (MWMT)	M6010D ICP	1	<0.007	U	*	mg/L	0.007	0.04	04/01/20 15:39	kja
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U	*	mg/L	0.00008	0.0003	03/31/20 13:10	mfm
Boron (MWMT)	M6010D ICP	1	0.11			mg/L	0.02	0.1	04/01/20 15:39	kja
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U	*	mg/L	0.00005	0.0003	03/31/20 13:10	mfm
Calcium (MWMT)	M6010D ICP	1	1.7			mg/L	0.1	0.5	04/01/20 15:39	kja
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U	*	mg/L	0.0005	0.002	03/31/20 13:10	mfm
Cobalt (MWMT)	M6020B ICP-MS	1	0.00007	B	*	mg/L	0.00005	0.0003	03/31/20 13:10	mfm
Copper (MWMT)	M6020B ICP-MS	1	0.037		*	mg/L	0.0008	0.002	03/31/20 13:10	mfm
Iron (MWMT)	M6010D ICP	1	0.08	B	*	mg/L	0.06	0.2	04/01/20 15:39	kja
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:10	mfm
Lithium (MWMT)	M6010D ICP	1	<0.008	U	*	mg/L	0.008	0.04	04/01/20 15:39	kja
Magnesium (MWMT)	M6010D ICP	1	0.4	B	*	mg/L	0.2	1	04/01/20 15:39	kja
Manganese (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.002	03/31/20 13:10	mfm
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	03/31/20 17:09	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0182		*	mg/L	0.0002	0.0005	03/31/20 13:10	mfm
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U	*	mg/L	0.0004	0.001	03/31/20 13:10	mfm
Phosphorus (MWMT)	M6010D ICP	1	0.1	B	*	mg/L	0.1	0.5	04/01/20 15:39	kja
Potassium (MWMT)	M6010D ICP	1	0.9	B	*	mg/L	0.2	1	04/01/20 15:39	kja
Selenium (MWMT)	M6020B ICP-MS	1	0.0001	B	*	mg/L	0.0001	0.0003	03/31/20 13:10	mfm
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:10	mfm
Sodium (MWMT)	M6010D ICP	1	7.7		*	mg/L	0.2	1	04/01/20 15:39	kja
Strontium (MWMT)	M6010D ICP	1	0.010	B	*	mg/L	0.009	0.05	04/01/20 15:39	kja
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	03/31/20 13:10	mfm
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	03/31/20 13:10	mfm
Tin (MWMT)	M6010D ICP	1	<0.04	U	*	mg/L	0.04	0.2	04/01/20 15:39	kja
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/01/20 15:39	kja
Uranium (MWMT)	M6020B ICP-MS	1	0.0001	B	*	mg/L	0.0001	0.0005	03/31/20 13:10	mfm
Vanadium (MWMT)	M6020B ICP-MS	1	0.0087		*	mg/L	0.0005	0.002	03/31/20 13:10	mfm
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U	*	mg/L	0.006	0.02	03/31/20 13:10	mfm

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB223_6-15

ACZ Sample ID: **L57215-16**

Date Sampled: 01/23/20 13:46

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	7.9			units	0.1	0.1	03/27/20 10:17	gkh
Temperature		1	20.6			C	0.1	0.1	03/27/20 10:17	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.0			units	0.1	0.1	02/21/20 14:14	nnk
Temperature		1	21.3			C	0.1	0.1	02/21/20 14:14	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/27/20 0:00	gkh
Extraction pH		1	5.01			units			03/27/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/27/20 0:00	gkh
Temperature										
Extraction Time		1	29.91667			hrs			03/27/20 0:00	gkh
Leachate Volume		1	5024.3			mL			03/27/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/27/20 0:00	gkh
Post Filter pH		1	7.84			units			03/27/20 0:00	gkh
Pre Filter pH		1	7.93			units			03/27/20 0:00	gkh
Retained Moisture		1	11.37			%			03/27/20 0:00	gkh
Temperature		1	20.6			C	0.1	0.1	03/27/20 0:00	gkh
Time In		1							03/27/20 0:00	gkh
Time Out		1							03/27/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB223_6-15

ACZ Sample ID: **L57215-16**

Date Sampled: 01/23/20 13:46

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMT)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	10.9	B	*	mg/L	2	20	03/30/20 13:10	emk
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 13:10	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	03/30/20 13:10	emk
Total Alkalinity		1	10.9	B	*	mg/L	2	20	03/30/20 13:10	emk
Chloride (MWMT)	SM4500Cl-E	1	1.0	B	*	mg/L	0.5	2	03/30/20 17:49	krh/rbt
Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:40	pjb
Fluoride (MWMT)	SM4500F-C	1	0.8		*	mg/L	0.1	0.4	04/08/20 11:55	emk
Nitrate as N (MWMT)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	04/01/20 1:40	pjb
Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 1:40	pjb
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	04/08/20 0:06	pjb
Residue, Filterable (TDS) @180C (MWMT)	SM2540C	1	44		*	mg/L	20	40	03/30/20 12:15	nnk/emk
Sulfate (MWMT)	D516-07 - Turbidimetric	1	9.1		*	mg/L	1	5	04/01/20 9:45	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228_0.5-3

ACZ Sample ID: **L57215-17**

Date Sampled: 01/23/20 14:28

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 14:20	wtc
ICP MWMT Prep	M6010D ICP								04/01/20 10:28	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/31/20 17:57	bsu
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/07/20 10:07	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	<0.05	U		mg/L	0.05	0.3	04/02/20 9:28	jlw
Antimony (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	04/02/20 17:48	bsu
Arsenic (MWMT)	M6020B ICP-MS	1	0.0192			mg/L	0.0002	0.001	04/02/20 17:48	bsu
Barium (MWMT)	M6010D ICP	1	<0.007	U		mg/L	0.007	0.04	04/02/20 9:28	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U		mg/L	0.00008	0.0003	04/02/20 17:48	bsu
Boron (MWMT)	M6010D ICP	1	0.16		*	mg/L	0.02	0.1	04/02/20 9:28	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U		mg/L	0.00005	0.0003	04/02/20 17:48	bsu
Calcium (MWMT)	M6010D ICP	1	1.7			mg/L	0.1	0.5	04/02/20 9:28	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U		mg/L	0.0005	0.002	04/02/20 17:48	bsu
Cobalt (MWMT)	M6020B ICP-MS	1	0.00005	B		mg/L	0.00005	0.0003	04/02/20 17:48	bsu
Copper (MWMT)	M6020B ICP-MS	1	0.0037			mg/L	0.0008	0.002	04/02/20 17:48	bsu
Iron (MWMT)	M6010D ICP	1	<0.06	U		mg/L	0.06	0.2	04/02/20 9:28	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:48	bsu
Lithium (MWMT)	M6010D ICP	1	<0.008	U		mg/L	0.008	0.04	04/02/20 9:28	jlw
Magnesium (MWMT)	M6010D ICP	1	0.2	B	*	mg/L	0.2	1	04/02/20 9:28	jlw
Manganese (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	04/02/20 17:48	bsu
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	04/01/20 15:19	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0303		*	mg/L	0.0002	0.0005	04/02/20 17:48	bsu
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.001	04/02/20 17:48	bsu
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U		mg/L	0.1	0.5	04/02/20 9:28	jlw
Potassium (MWMT)	M6010D ICP	1	0.9	B	*	mg/L	0.2	1	04/02/20 9:28	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0003	04/02/20 17:48	bsu
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:48	bsu
Sodium (MWMT)	M6010D ICP	1	8.1			mg/L	0.2	1	04/02/20 9:28	jlw
Strontium (MWMT)	M6010D ICP	1	0.017	B		mg/L	0.009	0.05	04/02/20 9:28	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:48	bsu
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	04/02/20 17:48	bsu
Tin (MWMT)	M6010D ICP	1	<0.04	U		mg/L	0.04	0.2	04/02/20 9:28	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/02/20 9:28	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0005	04/02/20 17:48	bsu
Vanadium (MWMT)	M6020B ICP-MS	1	0.0129			mg/L	0.0005	0.002	04/02/20 17:48	bsu
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U		mg/L	0.006	0.02	04/02/20 17:48	bsu

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228_0.5-3

ACZ Sample ID: **L57215-17**

Date Sampled: 01/23/20 14:28

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	7.2			units	0.1	0.1	03/27/20 14:55	gkh
Temperature		1	20.2			C	0.1	0.1	03/27/20 14:55	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.4			units	0.1	0.1	02/21/20 14:18	nnk
Temperature		1	20.9			C	0.1	0.1	02/21/20 14:18	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoric Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/26/20 0:00	gkh
Extraction pH		1	5.06			units			03/26/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/26/20 0:00	gkh
Temperature										
Extraction Time		1	27.16667			hrs			03/26/20 0:00	gkh
Leachate Volume		1	5022.8			mL			03/26/20 0:00	gkh
Particle Size over 5 cm		1	8.97			%			03/26/20 0:00	gkh
Post Filter pH		1	7.24			units			03/26/20 0:00	gkh
Pre Filter pH		1	7.16			units			03/26/20 0:00	gkh
Retained Moisture		1	4.93			%			03/26/20 0:00	gkh
Temperature		1	20.2			C	0.1	0.1	03/26/20 0:00	gkh
Time In		1							03/26/20 0:00	gkh
Time Out		1							03/26/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228_0.5-3

ACZ Sample ID: **L57215-17**

Date Sampled: 01/23/20 14:28

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	14.6	B	*	mg/L	2	20	04/01/20 11:14	eep
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	04/01/20 11:14	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	04/01/20 11:14	eep
Total Alkalinity		1	14.6	B	*	mg/L	2	20	04/01/20 11:14	eep
Chloride (MWMt)	SM4500Cl-E	1	0.6	B	*	mg/L	0.5	2	04/02/20 14:24	mss2
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:20	pjb
Fluoride (MWMt)	SM4500F-C	1	1.3		*	mg/L	0.1	0.4	04/08/20 12:15	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	04/01/20 2:26	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 2:26	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	04/08/20 0:19	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	48		*	mg/L	20	40	04/01/20 9:56	nnk
Sulfate (MWMt)	D516-07 - Turbidimetric	1	4.3	B	*	mg/L	1	5	04/01/20 10:20	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228-FD_0.5-3

ACZ Sample ID: **L57215-18**

Date Sampled: 01/23/20 14:30

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 14:31	wtc
ICP MWMT Prep	M6010D ICP								04/01/20 11:53	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/31/20 22:20	bsu
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/07/20 10:52	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.18	B		mg/L	0.05	0.3	04/02/20 9:40	jlw
Antimony (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	04/02/20 18:19	bsu
Arsenic (MWMT)	M6020B ICP-MS	1	0.0129			mg/L	0.0002	0.001	04/02/20 18:19	bsu
Barium (MWMT)	M6010D ICP	1	0.007	B		mg/L	0.007	0.04	04/02/20 9:40	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U		mg/L	0.00008	0.0003	04/02/20 18:19	bsu
Boron (MWMT)	M6010D ICP	1	0.15		*	mg/L	0.02	0.1	04/02/20 9:40	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U		mg/L	0.00005	0.0003	04/02/20 18:19	bsu
Calcium (MWMT)	M6010D ICP	1	1.2			mg/L	0.1	0.5	04/02/20 9:40	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U		mg/L	0.0005	0.002	04/02/20 18:19	bsu
Cobalt (MWMT)	M6020B ICP-MS	1	0.00006	B		mg/L	0.00005	0.0003	04/02/20 18:19	bsu
Copper (MWMT)	M6020B ICP-MS	1	0.0044			mg/L	0.0008	0.002	04/02/20 18:19	bsu
Iron (MWMT)	M6010D ICP	1	0.13	B		mg/L	0.06	0.2	04/02/20 9:40	jlw
Lead (MWMT)	M6020B ICP-MS	1	0.0003	B		mg/L	0.0001	0.0005	04/02/20 18:19	bsu
Lithium (MWMT)	M6010D ICP	1	<0.008	U		mg/L	0.008	0.04	04/02/20 9:40	jlw
Magnesium (MWMT)	M6010D ICP	1	<0.2	U	*	mg/L	0.2	1	04/02/20 9:40	jlw
Manganese (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	04/02/20 18:19	bsu
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	04/01/20 15:22	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0246		*	mg/L	0.0002	0.0005	04/02/20 18:19	bsu
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.001	04/02/20 18:19	bsu
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U		mg/L	0.1	0.5	04/02/20 9:40	jlw
Potassium (MWMT)	M6010D ICP	1	0.6	B	*	mg/L	0.2	1	04/02/20 9:40	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0003	04/02/20 18:19	bsu
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 18:19	bsu
Sodium (MWMT)	M6010D ICP	1	7.2			mg/L	0.2	1	04/02/20 9:40	jlw
Strontium (MWMT)	M6010D ICP	1	0.014	B		mg/L	0.009	0.05	04/02/20 9:40	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 18:19	bsu
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	04/02/20 18:19	bsu
Tin (MWMT)	M6010D ICP	1	<0.04	U		mg/L	0.04	0.2	04/02/20 9:40	jlw
Titanium (MWMT)	M6010D ICP	1	0.006	B	*	mg/L	0.005	0.03	04/02/20 9:40	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0005	04/02/20 18:19	bsu
Vanadium (MWMT)	M6020B ICP-MS	1	0.0091			mg/L	0.0005	0.002	04/02/20 18:19	bsu
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U		mg/L	0.006	0.02	04/02/20 18:19	bsu

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228-FD_0.5-3

ACZ Sample ID: **L57215-18**

Date Sampled: 01/23/20 14:30

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	7.3			units	0.1	0.1	03/27/20 12:45	gkh
Temperature		1	20.2			C	0.1	0.1	03/27/20 12:45	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.5			units	0.1	0.1	02/21/20 14:23	nnk
Temperature		1	20.9			C	0.1	0.1	02/21/20 14:23	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/27/20 0:00	gkh
Extraction pH		1	5.06			units			03/27/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/27/20 0:00	gkh
Temperature										
Extraction Time		1	25			hrs			03/27/20 0:00	gkh
Leachate Volume		1	5001			mL			03/27/20 0:00	gkh
Particle Size over 5 cm		1	3.12			%			03/27/20 0:00	gkh
Post Filter pH		1	7.32			units			03/27/20 0:00	gkh
Pre Filter pH		1	7.27			units			03/27/20 0:00	gkh
Retained Moisture		1	8.55			%			03/27/20 0:00	gkh
Temperature		1	20.2			C	0.1	0.1	03/27/20 0:00	gkh
Time In		1							03/27/20 0:00	gkh
Time Out		1							03/27/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228-FD_0.5-3

ACZ Sample ID: **L57215-18**

Date Sampled: 01/23/20 14:30

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	11.4	B	*	mg/L	2	20	04/01/20 11:22	eep
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	04/01/20 11:22	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	04/01/20 11:22	eep
Total Alkalinity		1	11.4	B	*	mg/L	2	20	04/01/20 11:22	eep
Chloride (MWMt)	SM4500Cl-E	1	<0.5	U	*	mg/L	0.5	2	04/02/20 14:24	mss2
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:22	pjb
Fluoride (MWMt)	SM4500F-C	1	1.0		*	mg/L	0.1	0.4	04/08/20 12:25	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	04/01/20 2:29	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 2:29	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	04/08/20 0:22	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	38	B	*	mg/L	20	40	04/01/20 10:00	nnk
Sulfate (MWMt)	D516-07 - Turbidimetric	1	3.8	B	*	mg/L	1	5	04/01/20 9:45	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228_6-15

ACZ Sample ID: **L57215-19**

Date Sampled: 01/23/20 14:44

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 14:36	wtc
ICP MWMT Prep	M6010D ICP								04/01/20 12:21	kja
ICPMS MWMT Prep	M6020B ICP-MS								03/31/20 23:47	bsu
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/07/20 11:15	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.15	B		mg/L	0.05	0.3	04/02/20 9:44	jlw
Antimony (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	04/02/20 17:53	bsu
Arsenic (MWMT)	M6020B ICP-MS	1	0.0093			mg/L	0.0002	0.001	04/02/20 17:53	bsu
Barium (MWMT)	M6010D ICP	1	0.007	B		mg/L	0.007	0.04	04/02/20 9:44	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U		mg/L	0.00008	0.0003	04/02/20 17:53	bsu
Boron (MWMT)	M6010D ICP	1	0.17		*	mg/L	0.02	0.1	04/02/20 9:44	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U		mg/L	0.00005	0.0003	04/02/20 17:53	bsu
Calcium (MWMT)	M6010D ICP	1	3.6			mg/L	0.1	0.5	04/02/20 9:44	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U		mg/L	0.0005	0.002	04/02/20 17:53	bsu
Cobalt (MWMT)	M6020B ICP-MS	1	0.00012	B		mg/L	0.00005	0.0003	04/02/20 17:53	bsu
Copper (MWMT)	M6020B ICP-MS	1	0.0026			mg/L	0.0008	0.002	04/02/20 17:53	bsu
Iron (MWMT)	M6010D ICP	1	0.10	B		mg/L	0.06	0.2	04/02/20 9:44	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:53	bsu
Lithium (MWMT)	M6010D ICP	1	<0.008	U		mg/L	0.008	0.04	04/02/20 9:44	jlw
Magnesium (MWMT)	M6010D ICP	1	0.6	B	*	mg/L	0.2	1	04/02/20 9:44	jlw
Manganese (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	04/02/20 17:53	bsu
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	04/01/20 15:23	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.0483		*	mg/L	0.0002	0.0005	04/02/20 17:53	bsu
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.001	04/02/20 17:53	bsu
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U		mg/L	0.1	0.5	04/02/20 9:44	jlw
Potassium (MWMT)	M6010D ICP	1	1.3		*	mg/L	0.2	1	04/02/20 9:44	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0004		*	mg/L	0.0001	0.0003	04/02/20 17:53	bsu
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:53	bsu
Sodium (MWMT)	M6010D ICP	1	13.8			mg/L	0.2	1	04/02/20 9:44	jlw
Strontium (MWMT)	M6010D ICP	1	0.039	B		mg/L	0.009	0.05	04/02/20 9:44	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:53	bsu
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	04/02/20 17:53	bsu
Tin (MWMT)	M6010D ICP	1	<0.04	U		mg/L	0.04	0.2	04/02/20 9:44	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/02/20 9:44	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0003	B	*	mg/L	0.0001	0.0005	04/02/20 17:53	bsu
Vanadium (MWMT)	M6020B ICP-MS	1	0.0071			mg/L	0.0005	0.002	04/02/20 17:53	bsu
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U		mg/L	0.006	0.02	04/02/20 17:53	bsu

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228_6-15

ACZ Sample ID: **L57215-19**

Date Sampled: 01/23/20 14:44

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	7.4			units	0.1	0.1	03/27/20 14:15	gkh
Temperature		1	20.0			C	0.1	0.1	03/27/20 14:15	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.0			units	0.1	0.1	02/21/20 14:28	nnk
Temperature		1	21.0			C	0.1	0.1	02/21/20 14:28	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000			g			03/27/20 0:00	gkh
Extraction pH		1	5.06			units			03/27/20 0:00	gkh
Extraction		1	23.0			C	0.1	0.1	03/27/20 0:00	gkh
Temperature										
Extraction Time		1	26.5			hrs			03/27/20 0:00	gkh
Leachate Volume		1	5003.8			mL			03/27/20 0:00	gkh
Particle Size over 5 cm		1	0			%			03/27/20 0:00	gkh
Post Filter pH		1	7.41			units			03/27/20 0:00	gkh
Pre Filter pH		1	7.35			units			03/27/20 0:00	gkh
Retained Moisture		1	11.92			%			03/27/20 0:00	gkh
Temperature		1	20.0			C	0.1	0.1	03/27/20 0:00	gkh
Time In		1							03/27/20 0:00	gkh
Time Out		1							03/27/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228_6-15

ACZ Sample ID: **L57215-19**

Date Sampled: 01/23/20 14:44

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	17.8	B	*	mg/L	2	20	04/01/20 11:39	eep
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	04/01/20 11:39	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	04/01/20 11:39	eep
Total Alkalinity		1	17.8	B	*	mg/L	2	20	04/01/20 11:39	eep
Chloride (MWMt)	SM4500Cl-E	1	2.5		*	mg/L	0.5	2	04/02/20 14:24	mss2
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:23	pjb
Fluoride (MWMt)	SM4500F-C	1	1.3		*	mg/L	0.1	0.4	04/08/20 12:28	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		0.07	BH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	0.07	BH	*	mg/L	0.02	0.1	04/01/20 2:32	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 2:32	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	04/08/20 0:23	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	72		*	mg/L	20	40	04/01/20 10:03	nnk
Sulfate (MWMt)	D516-07 - Turbidimetric	1	16.7		*	mg/L	1	5	04/01/20 9:45	wtc

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB227_0.5-3

ACZ Sample ID: **L57215-20**

Date Sampled: 01/24/20 08:40

Date Received: 02/03/20

Sample Matrix: Soil

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD (MWMT) Prep	SM4500-CN I		-		*				04/02/20 14:41	wtc
ICP MWMT Prep	M6010D ICP								04/01/20 12:50	kja
ICPMS MWMT Prep	M6020B ICP-MS								04/01/20 1:15	bsu
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor				*				04/07/20 11:37	rbt

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (MWMT)	M6010D ICP	1	0.06	B		mg/L	0.05	0.3	04/02/20 9:48	jlw
Antimony (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	04/02/20 17:55	bsu
Arsenic (MWMT)	M6020B ICP-MS	1	0.0294			mg/L	0.0002	0.001	04/02/20 17:55	bsu
Barium (MWMT)	M6010D ICP	1	<0.007	U		mg/L	0.007	0.04	04/02/20 9:48	jlw
Beryllium (MWMT)	M6020B ICP-MS	1	<0.00008	U		mg/L	0.00008	0.0003	04/02/20 17:55	bsu
Boron (MWMT)	M6010D ICP	1	0.14		*	mg/L	0.02	0.1	04/02/20 9:48	jlw
Cadmium (MWMT)	M6020B ICP-MS	1	<0.00005	U		mg/L	0.00005	0.0003	04/02/20 17:55	bsu
Calcium (MWMT)	M6010D ICP	1	4.2			mg/L	0.1	0.5	04/02/20 9:48	jlw
Chromium (MWMT)	M6020B ICP-MS	1	<0.0005	U		mg/L	0.0005	0.002	04/02/20 17:55	bsu
Cobalt (MWMT)	M6020B ICP-MS	1	<0.00005	U		mg/L	0.00005	0.0003	04/02/20 17:55	bsu
Copper (MWMT)	M6020B ICP-MS	1	0.0097			mg/L	0.0008	0.002	04/02/20 17:55	bsu
Iron (MWMT)	M6010D ICP	1	0.06	B		mg/L	0.06	0.2	04/02/20 9:48	jlw
Lead (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:55	bsu
Lithium (MWMT)	M6010D ICP	1	<0.008	U		mg/L	0.008	0.04	04/02/20 9:48	jlw
Magnesium (MWMT)	M6010D ICP	1	0.8	B	*	mg/L	0.2	1	04/02/20 9:48	jlw
Manganese (MWMT)	M6020B ICP-MS	1	0.0004	B		mg/L	0.0004	0.002	04/02/20 17:55	bsu
Mercury (MWMT)	M7470A CVAA	1	<0.0002	UH	*	mg/L	0.0002	0.001	04/01/20 15:24	slm
Molybdenum (MWMT)	M6020B ICP-MS	1	0.010		*	mg/L	0.0002	0.0005	04/02/20 17:55	bsu
Nickel (MWMT)	M6020B ICP-MS	1	<0.0004	U		mg/L	0.0004	0.001	04/02/20 17:55	bsu
Phosphorus (MWMT)	M6010D ICP	1	<0.1	U		mg/L	0.1	0.5	04/02/20 9:48	jlw
Potassium (MWMT)	M6010D ICP	1	1.2		*	mg/L	0.2	1	04/02/20 9:48	jlw
Selenium (MWMT)	M6020B ICP-MS	1	0.0003		*	mg/L	0.0001	0.0003	04/02/20 17:55	bsu
Silver (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:55	bsu
Sodium (MWMT)	M6010D ICP	1	6.3			mg/L	0.2	1	04/02/20 9:48	jlw
Strontium (MWMT)	M6010D ICP	1	0.046	B		mg/L	0.009	0.05	04/02/20 9:48	jlw
Thallium (MWMT)	M6020B ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	04/02/20 17:55	bsu
Thorium (MWMT)	M6020B ICP-MS	1	<0.001	U	*	mg/L	0.001	0.005	04/02/20 17:55	bsu
Tin (MWMT)	M6010D ICP	1	<0.04	U		mg/L	0.04	0.2	04/02/20 9:48	jlw
Titanium (MWMT)	M6010D ICP	1	<0.005	U	*	mg/L	0.005	0.03	04/02/20 9:48	jlw
Uranium (MWMT)	M6020B ICP-MS	1	0.0002	B	*	mg/L	0.0001	0.0005	04/02/20 17:55	bsu
Vanadium (MWMT)	M6020B ICP-MS	1	0.0233			mg/L	0.0005	0.002	04/02/20 17:55	bsu
Zinc (MWMT)	M6020B ICP-MS	1	<0.006	U		mg/L	0.006	0.02	04/02/20 17:55	bsu

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB227_0.5-3

ACZ Sample ID: **L57215-20**

Date Sampled: 01/24/20 08:40

Date Received: 02/03/20

Sample Matrix: Soil

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
pH (MWMT)	M9045D/M9040C									
pH		1	7.4			units	0.1	0.1	03/27/20 13:40	gkh
Temperature		1	20.0			C	0.1	0.1	03/27/20 13:40	gkh
pH, Corrosivity	M9045D/M9040C									
pH		1	8.2			units	0.1	0.1	02/21/20 14:32	nnk
Temperature		1	20.3			C	0.1	0.1	02/21/20 14:32	nnk

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Meteoritic Water	ASTM E2242-13									
Mobility Extraction										
Dry Weight		1	5000		*	g			03/27/20 0:00	gkh
Extraction pH		1	5.06		*	units			03/27/20 0:00	gkh
Extraction		1	23.0		*	C	0.1	0.1	03/27/20 0:00	gkh
Temperature										
Extraction Time		1	25.91667		*	hrs			03/27/20 0:00	gkh
Leachate Volume		1	5004.5		*	mL			03/27/20 0:00	gkh
Particle Size over 5 cm		1	8.8		*	%			03/27/20 0:00	gkh
Post Filter pH		1	7.49		*	units			03/27/20 0:00	gkh
Pre Filter pH		1	7.43		*	units			03/27/20 0:00	gkh
Retained Moisture		1	10.76		*	%			03/27/20 0:00	gkh
Temperature		1	20.0		*	C	0.1	0.1	03/27/20 0:00	gkh
Time In		1			*				03/27/20 0:00	gkh
Time Out		1			*				03/27/20 0:00	gkh

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB227_0.5-3

ACZ Sample ID: **L57215-20**

Date Sampled: 01/24/20 08:40

Date Received: 02/03/20

Sample Matrix: Soil

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity (MWMt)	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	16.6	B	*	mg/L	2	20	04/01/20 11:47	eep
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	04/01/20 11:47	eep
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	04/01/20 11:47	eep
Total Alkalinity		1	16.6	B	*	mg/L	2	20	04/01/20 11:47	eep
Chloride (MWMt)	SM4500Cl-E	1	1.2	B	*	mg/L	0.5	2	04/02/20 14:24	mss2
Cyanide, WAD (MWMt)	SM4500-CN I,E-Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	04/04/20 0:24	pjb
Fluoride (MWMt)	SM4500F-C	1	0.9		*	mg/L	0.1	0.4	04/08/20 12:32	emk
Nitrate as N (MWMt)	Calculation: NO ₃ NO ₂ minus NO ₂		<0.02	UH		mg/L	0.02	0.1	07/23/20 0:00	calc
Nitrate/Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.02	UH	*	mg/L	0.02	0.1	04/01/20 2:33	pjb
Nitrite as N (MWMt)	M353.2 - Automated Cadmium Reduction	1	<0.01	UH	*	mg/L	0.01	0.05	04/01/20 2:33	pjb
Nitrogen, total Kjeldahl (MWMt)	M351.2 - Block Digestor	1	<0.2	U	*	mg/L	0.2	0.5	04/08/20 0:24	pjb
Residue, Filterable (TDS) @180C (MWMt)	SM2540C	1	60		*	mg/L	20	40	04/01/20 10:07	nnk
Sulfate (MWMt)	D516-07 - Turbidimetric	1	7.3		*	mg/L	1	5	04/01/20 9:45	wtc



Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO₃

SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494501													
WG494501PBW	PBW	03/27/20 14:26				2.6	mg/L		-20	20			
WG494501LCSW1	LCSW	03/27/20 14:39	WC200320-1	820.0001		844	mg/L	103	90	110			
WG493948PBS	PBS	03/27/20 14:48				2	mg/L		-20	20			
L57215-08DUP	DUP	03/27/20 16:09			113	119	mg/L				5	20	
WG494501LCSW2	LCSW	03/27/20 16:22	WC200320-1	820.0001		850	mg/L	104	90	110			
WG494561													
WG494561PBW	PBW	03/30/20 11:28				6.5	mg/L		-20	20			
WG494561LCSW1	LCSW	03/30/20 11:41	WC200320-1	820.0001		848	mg/L	103	90	110			
WG493997PBS	PBS	03/30/20 11:50				2.4	mg/L		-20	20			
L57215-13DUP	DUP	03/30/20 12:45			32.7	45.6	mg/L				33	20	RD
WG494561LCSW2	LCSW	03/30/20 13:23	WC200320-1	820.0001		851	mg/L	104	90	110			
WG494741													
WG494741PBW	PBW	04/01/20 10:43				7.2	mg/L		-20	20			
WG494741LCSW1	LCSW	04/01/20 10:56	WC200320-1	820.0001		850	mg/L	104	90	110			
WG494001PBS	PBS	04/01/20 11:05				U	mg/L		-20	20			
L57215-18DUP	DUP	04/01/20 11:31			11.4	11.4	mg/L				0	20	RA
WG494741LCSW2	LCSW	04/01/20 12:47	WC200320-1	820.0001		833	mg/L	102	90	110			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Aluminum (MWMt)

M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	2		1.987	mg/L	99	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.15	0.15			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.2503		.254	mg/L	101	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	250.3		258.2	mg/L	103	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.15	0.15			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	1.0012		1.014	mg/L	101	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	1		.995	mg/L	100	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.15	0.15			
L57215-08SDL	SDL	03/30/20 23:35			U	U	mg/L					10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	1.0012	U	1.099	mg/L	110	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	1.0012	U	1.086	mg/L	108	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			U	.138	mg/L				200	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	1		.995	mg/L	100	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.15	0.15			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	2		1.998	mg/L	100	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.15	0.15			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.2503		.221	mg/L	88	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	250.3		252.7	mg/L	101	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.15	0.15			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	1.0012		.941	mg/L	94	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	1.0012	U	.975	mg/L	97	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	1.0012	U	.976	mg/L	97	75	125	0	20	
L57215-13DUP	DUP	04/01/20 15:15			U	U	mg/L				0	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	1		.995	mg/L	100	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.15	0.15			
L57215-14SDL	SDL	04/01/20 15:31			U	U	mg/L					10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	1		.951	mg/L	95	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.15	0.15			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	2		1.987	mg/L	99	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.15	0.15			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.2503		.267	mg/L	107	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	250.3		247.3	mg/L	99	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.15	0.15			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	1.0012		1.006	mg/L	100	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	1.0012	U	1.015	mg/L	101	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	1.0012	U	1.024	mg/L	102	75	125	1	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	1		1.006	mg/L	101	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.15	0.15			
L57217-02SDL	SDL	04/02/20 10:07			U	U	mg/L					10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	1		.994	mg/L	99	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.15	0.15			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Antimony (MWMt)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.02004		.01889	mg/L	94	90	110			
WG494662ICB	ICB	03/31/20 12:33				.0006	mg/L		-0.0012	0.0012			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.002		.00203	mg/L	102	70	130			
WG494662ICSA	ICSA	03/31/20 12:36				U	mg/L		-0.002	0.002			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.01		.01099	mg/L	110	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0012	0.0012			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.01		.01047	mg/L	105	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.0004	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.01	.0004	.01099	mg/L	106	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.01	.0004	.011	mg/L	106	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.0125		.01272	mg/L	102	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0012	0.0012			
L57215-13DUP	DUP	03/31/20 13:05			.0004	.00075	mg/L				61	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.0125		.01276	mg/L	102	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0012	0.0012			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.02004		.01896	mg/L	95	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0012	0.0012			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.002		.00195	mg/L	98	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.002	0.002			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.01		.01027	mg/L	103	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0012	0.0012			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.0125		.01257	mg/L	101	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0012	0.0012			
L57215-08SDL	SDL	03/31/20 14:06			.0008	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.01	.0008	.01089	mg/L	101	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.01	.0008	.01092	mg/L	101	75	125	0	20	
L57215-08DUP	DUP	03/31/20 14:15			.0008	.00116	mg/L				37	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.01		.00976	mg/L	98	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.0125		.01254	mg/L	100	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0012	0.0012			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.02004		.01969	mg/L	98	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0012	0.0012			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.002		.00198	mg/L	99	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.002	0.002			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.01		.01034	mg/L	103	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0012	0.0012			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.01		.01018	mg/L	102	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.01	U	.01028	mg/L	103	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.01	U	.01027	mg/L	103	75	125	0	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.0125		.01235	mg/L	99	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0012	0.0012			
L57217-02SDL	SDL	04/02/20 18:04			.0006	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.0125		.01243	mg/L	99	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0012	0.0012			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0012	0.0012			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.01		.01026	mg/L	103	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.0125		.01251	mg/L	100	90	110			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22

U mg/L -0.0012 0.0012

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic (MWMt)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.04816	mg/L	96	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0006	0.0006			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.001001		.0011	mg/L	110	70	130			
WG494662ICSA	ICSA	03/31/20 12:36		.00025		.00025	mg/L		-0.001	0.001			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02002		.02132	mg/L	106	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0006	0.0006			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05005		.04943	mg/L	99	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.0187	.02125	mg/L				14	10	ZH
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05005	.0187	.06964	mg/L	102	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05005	.0187	.07013	mg/L	103	75	125	1	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1001		.10158	mg/L	101	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0006	0.0006			
L57215-13DUP	DUP	03/31/20 13:05			.0187	.03869	mg/L				70	20	RD
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1001		.10028	mg/L	100	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0006	0.0006			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.04791	mg/L	96	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0006	0.0006			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.001001		.00092	mg/L	92	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.001	0.001			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02002		.01964	mg/L	98	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0006	0.0006			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1001		.09836	mg/L	98	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0006	0.0006			
L57215-08SDL	SDL	03/31/20 14:06			.0794	.0763	mg/L				4	10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05005	.0794	.1261	mg/L	93	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05005	.0794	.1238	mg/L	89	75	125	2	20	
L57215-08DUP	DUP	03/31/20 14:15			.0794	.08013	mg/L				1	20	
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05005		.04771	mg/L	95	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1001		.09931	mg/L	99	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0006	0.0006			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.04941	mg/L	99	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0006	0.0006			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.001001		.00096	mg/L	96	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.001	0.001			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02002		.01989	mg/L	99	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0006	0.0006			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05005		.04941	mg/L	99	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05005	.0192	.06827	mg/L	98	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05005	.0192	.06898	mg/L	99	75	125	1	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1001		.10137	mg/L	101	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0006	0.0006			
L57217-02SDL	SDL	04/02/20 18:04			.1083	.1085	mg/L				0	10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1001		.10264	mg/L	103	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0006	0.0006			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0006	0.0006			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05005		.05062	mg/L	101	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1001		.10098	mg/L	101	90	110			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 U mg/L -0.0006 0.0006

Barium (MWMT) M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	2		1.963	mg/L	98	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.021	0.021			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.035035		.0365	mg/L	104	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	.25025		.245	mg/L	98	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.021	0.021			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	.5005		.4824	mg/L	96	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	1		.9852	mg/L	99	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.021	0.021			
L57215-08SDL	SDL	03/30/20 23:35			U	U	mg/L					10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	.5005	U	.4949	mg/L	99	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	.5005	U	.4893	mg/L	98	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			U	.0117	mg/L				200	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	1		.9846	mg/L	98	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.021	0.021			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	2		2.018	mg/L	101	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.021	0.021			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.035035		.0308	mg/L	88	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	.25025		.2461	mg/L	98	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.021	0.021			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	.5005		.4724	mg/L	94	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	.5005	U	.4909	mg/L	98	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	.5005	U	.4912	mg/L	98	75	125	0	20	
L57215-13DUP	DUP	04/01/20 15:15			U	.0098	mg/L				200	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	1		1.024	mg/L	102	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.021	0.021			
L57215-14SDL	SDL	04/01/20 15:31			U	U	mg/L					10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	1		.9662	mg/L	97	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.021	0.021			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	2		1.941	mg/L	97	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.021	0.021			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.035035		.0399	mg/L	114	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	.25025		.2518	mg/L	101	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.021	0.021			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	.5005		.4871	mg/L	97	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	.5005	U	.4802	mg/L	96	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	.5005	U	.4856	mg/L	97	75	125	1	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	1		.9782	mg/L	98	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.021	0.021			
L57217-02SDL	SDL	04/02/20 10:07			.011	U	mg/L					10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	1		.9775	mg/L	98	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.021	0.021			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beryllium (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.04811	mg/L	96	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.00024	0.00024			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.00025025		.000247	mg/L	99	70	130			
WG494662ICSA	ICSA	03/31/20 12:36		.00009		.00009	mg/L		-0.0003	0.0003			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02002		.020056	mg/L	100	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.00024	0.00024			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05005		.04909	mg/L	98	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05005	U	.049986	mg/L	100	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05005	U	.04893	mg/L	98	75	125	2	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1001		.102488	mg/L	102	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.00024	0.00024			
L57215-13DUP	DUP	03/31/20 13:05			U	U	mg/L				0	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1001		.099942	mg/L	100	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.00024	0.00024			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.04643	mg/L	93	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.00024	0.00024			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.00025025		.000198	mg/L	79	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.0003	0.0003			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02002		.01894	mg/L	95	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.00024	0.00024			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1001		.1001	mg/L	100	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.00024	0.00024			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05005	U	.04843	mg/L	97	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05005	U	.0481	mg/L	96	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			U	U	mg/L				0	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05005		.04679	mg/L	93	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1001		.09942	mg/L	99	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.00024	0.00024			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.048725	mg/L	97	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.00024	0.00024			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.00025025		.000286	mg/L	114	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.0003	0.0003			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02002		.020412	mg/L	102	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.00024	0.00024			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05005		.052836	mg/L	106	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05005	U	.050595	mg/L	101	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05005	U	.051408	mg/L	103	75	125	2	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1001		.10547	mg/L	105	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.00024	0.00024			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1001		.107351	mg/L	107	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.00024	0.00024			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.00024	0.00024			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05005		.051629	mg/L	103	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1001		.107397	mg/L	107	90	110			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 U mg/L -0.00024 0.00024

Boron (MWMT) M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	2		1.982	mg/L	99	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.06	0.06			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.1001		.104	mg/L	104	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	.5005		.497	mg/L	99	80	120			
WG493948PBS	PBS	03/30/20 22:48				.022	mg/L		-0.06	0.06			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	.5005		.523	mg/L	104	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	1		1.007	mg/L	101	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.06	0.06			
L57215-08SDL	SDL	03/30/20 23:35			.57	.605	mg/L				6	10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	.5005	.57	1.091	mg/L	104	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	.5005	.57	1.083	mg/L	102	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			.57	.606	mg/L				6	20	
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	1		1.006	mg/L	101	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.06	0.06			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	2		2.034	mg/L	102	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.06	0.06			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.1001		.088	mg/L	88	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	.5005		.493	mg/L	99	80	120			
WG493997PBS	PBS	04/01/20 14:40				.032	mg/L		-0.06	0.06			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	.5005		.528	mg/L	105	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	.5005	.31	.831	mg/L	104	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	.5005	.31	.832	mg/L	104	75	125	0	20	
L57215-13DUP	DUP	04/01/20 15:15			.31	.34	mg/L				9	20	
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	1		.999	mg/L	100	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.06	0.06			
L57215-14SDL	SDL	04/01/20 15:31			.16	U	mg/L					10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	1		.961	mg/L	96	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.06	0.06			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	2		1.989	mg/L	99	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.06	0.06			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.1001		.113	mg/L	113	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	.5005		.503	mg/L	100	80	120			
WG494001PBS	PBS	04/02/20 9:20				.039	mg/L		-0.06	0.06			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	.5005		.541	mg/L	108	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	.5005	.16	.66	mg/L	100	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	.5005	.16	.677	mg/L	103	75	125	3	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	1		1.002	mg/L	100	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.06	0.06			
L57217-02SDL	SDL	04/02/20 10:07			.22	.27	mg/L				23	10	ZG
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	1		1.008	mg/L	101	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.06	0.06			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Cadmium (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.048289	mg/L	97	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.00015	0.00015			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.00025025		.000242	mg/L	97	70	130			
WG494662ICSA	ICSA	03/31/20 12:36		.000238		.000238	mg/L		-0.0003	0.0003			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02002		.020316	mg/L	101	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.00015	0.00015			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05005		.049256	mg/L	98	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05005	U	.049254	mg/L	98	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05005	U	.049295	mg/L	98	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1001		.101275	mg/L	101	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.00015	0.00015			
L57215-13DUP	DUP	03/31/20 13:05			U	U	mg/L				0	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1001		.101412	mg/L	101	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.00015	0.00015			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.04771	mg/L	95	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.00015	0.00015			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.00025025		.000216	mg/L	86	70	130			
WG494534ICSA	ICSA	03/31/20 13:23		.000127		.000127	mg/L		-0.0003	0.0003			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02002		.01893	mg/L	95	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.00015	0.00015			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1001		.1011	mg/L	101	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.00015	0.00015			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05005	U	.0487	mg/L	97	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05005	U	.04902	mg/L	98	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			U	U	mg/L				0	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05005		.04738	mg/L	95	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1001		.1	mg/L	100	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.00015	0.00015			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.049463	mg/L	99	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.00015	0.00015			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.00025025		.000242	mg/L	97	70	130			
WG494824ICSA	ICSA	04/02/20 17:39		.000101		.000101	mg/L		-0.0003	0.0003			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02002		.019773	mg/L	99	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.00015	0.00015			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05005		.048563	mg/L	97	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05005	U	.047562	mg/L	95	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05005	U	.048669	mg/L	97	75	125	2	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1001		.098298	mg/L	98	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.00015	0.00015			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1001		.099282	mg/L	99	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.00015	0.00015			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.00015	0.00015			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05005		.049332	mg/L	99	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1001		.098732	mg/L	99	90	110			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 U mg/L -0.00015 0.00015

Calcium (MWMt) M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	100		100	mg/L	100	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.3	0.3			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.5006		.54	mg/L	108	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	250.3		246.6	mg/L	99	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.3	0.3			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	68.00334		68.47	mg/L	101	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	50		49.25	mg/L	99	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.3	0.3			
L57215-08SDL	SDL	03/30/20 23:35			4.2	4.45	mg/L				6	10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	68.00334	4.2	74.75	mg/L	104	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	68.00334	4.2	73.97	mg/L	103	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			4.2	5.55	mg/L				28	20	RD
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	50		49.61	mg/L	99	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.3	0.3			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	100		100.5	mg/L	101	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.3	0.3			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.5006		.53	mg/L	106	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	250.3		250.7	mg/L	100	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.3	0.3			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	68.00334		65.54	mg/L	96	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	68.00334	4.2	72.74	mg/L	101	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	68.00334	4.2	73.13	mg/L	101	75	125			
L57215-13DUP	DUP	04/01/20 15:15			4.2	5.09	mg/L				19	20	
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	50		51.07	mg/L	102	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.3	0.3			
L57215-14SDL	SDL	04/01/20 15:31			6.8	7.05	mg/L				4	10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	50		48.33	mg/L	97	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.3	0.3			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	100		100.8	mg/L	101	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.3	0.3			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.5006		.45	mg/L	90	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	250.3		255.8	mg/L	102	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.3	0.3			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	68.00334		71.27	mg/L	105	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	68.00334	1.7	71.35	mg/L	102	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	68.00334	1.7	71.68	mg/L	103	75	125	0	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	50		51.5	mg/L	103	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.3	0.3			
L57217-02SDL	SDL	04/02/20 10:07			19.8	19.9	mg/L				1	10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	50		51.33	mg/L	103	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.3	0.3			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

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Chloride (MWMT)

SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494476													
WG494476ICB	ICB	03/27/20 9:57				U	mg/L		-1.5	1.5			
WG494476ICV	ICV	03/27/20 9:57	WI190501-1	54.835		55.66	mg/L	102	90	110			
WG494476CCV1	CCV	03/27/20 10:20	WI200327-1	50.05		52.22	mg/L	104	90	110			
WG494476CCB1	CCB	03/27/20 10:20				U	mg/L		-1.5	1.5			
WG494476LFB	LFB	03/27/20 10:20	WI200327-3	30.03		32.08	mg/L	107	90	110			
WG493354PBS	PBS	03/27/20 10:20				U	mg/L		-1.5	1.5			
L57101-03AS	AS	03/27/20 10:20	WI200327-3	30.03	.5	33.12	mg/L	109	90	110			
WG494476CCV2	CCV	03/27/20 10:22	WI200327-1	50.05		52.29	mg/L	104	90	110			
WG494476CCB2	CCB	03/27/20 10:22				U	mg/L		-1.5	1.5			
WG493948PBS	PBS	03/27/20 10:22				U	mg/L		-1.5	1.5			
WG494476CCV3	CCV	03/27/20 10:23	WI200327-1	50.05		52.13	mg/L	104	90	110			
WG494476CCB3	CCB	03/27/20 10:23				U	mg/L		-1.5	1.5			
WG494476CCV4	CCV	03/27/20 10:23	WI200327-1	50.05		52.19	mg/L	104	90	110			
WG494476CCB4	CCB	03/27/20 10:23				U	mg/L		-1.5	1.5			
WG494476CCV5	CCV	03/27/20 10:42	WI200327-1	50.05		51.87	mg/L	104	90	110			
WG494476CCB5	CCB	03/27/20 10:42				U	mg/L		-1.5	1.5			
WG494476CCV6	CCV	03/27/20 10:43	WI200327-1	50.05		52.3	mg/L	104	90	110			
WG494476CCB6	CCB	03/27/20 10:43				U	mg/L		-1.5	1.5			
WG494616													
WG494616ICB	ICB	03/30/20 15:39				U	mg/L		-1.5	1.5			
WG494616ICV	ICV	03/30/20 15:39	WI200327-1	50.05		54.99	mg/L	110	90	110			
WG494616CCV1	CCV	03/30/20 17:48	WI200327-1	50.05		52.08	mg/L	104	90	110			
WG494616CCB1	CCB	03/30/20 17:48				U	mg/L		-1.5	1.5			
WG494616LFB	LFB	03/30/20 17:48	WI200327-3	30.03		31.88	mg/L	106	90	110			
WG493997PBS	PBS	03/30/20 17:48				U	mg/L		-1.5	1.5			
L57215-13AS	AS	03/30/20 17:48	WI200327-3	30.03	5.6	36.88	mg/L	104	90	110			
L57215-13DUP	DUP	03/30/20 17:48			5.6	4.72	mg/L				17	20	
WG494616CCV2	CCV	03/30/20 17:49	WI200327-1	50.05		51.86	mg/L	104	90	110			
WG494616CCB2	CCB	03/30/20 17:49				U	mg/L		-1.5	1.5			
WG494075PBS	PBS	03/30/20 17:49				U	mg/L		-1.5	1.5			
WG494616CCV3	CCV	03/30/20 17:50	WI200327-1	50.05		52.39	mg/L	105	90	110			
WG494616CCB3	CCB	03/30/20 17:50				U	mg/L		-1.5	1.5			
WG494616CCV4	CCV	03/30/20 18:03	WI200327-1	50.05		52.13	mg/L	104	90	110			
WG494616CCB4	CCB	03/30/20 18:03				U	mg/L		-1.5	1.5			
WG494616CCV5	CCV	03/30/20 18:03	WI200327-1	50.05		52.23	mg/L	104	90	110			
WG494616CCB5	CCB	03/30/20 18:03				U	mg/L		-1.5	1.5			
WG494853													
WG494853ICB	ICB	04/02/20 13:45				U	mg/L		-1.5	1.5			
WG494853ICV	ICV	04/02/20 13:45	WI190501-1	54.835		57.53	mg/L	105	90	110			
WG494853CCV1	CCV	04/02/20 14:24	WI200327-1	50.05		52.38	mg/L	105	90	110			
WG494853CCB1	CCB	04/02/20 14:24				U	mg/L		-1.5	1.5			
WG494853LFB	LFB	04/02/20 14:24	WI200327-3	30.03		30.88	mg/L	103	90	110			
WG494001PBS	PBS	04/02/20 14:24				U	mg/L		-1.5	1.5			
L57215-17AS	AS	04/02/20 14:24	WI200327-3	30.03	.6	33.61	mg/L	110	90	110			
WG494853CCV2	CCV	04/02/20 14:25	WI200327-1	50.05		52.17	mg/L	104	90	110			
WG494853CCB2	CCB	04/02/20 14:25				U	mg/L		-1.5	1.5			
WG494853CCV3	CCV	04/02/20 14:25	WI200327-1	50.05		52.44	mg/L	105	90	110			
WG494853CCB3	CCB	04/02/20 14:25				U	mg/L		-1.5	1.5			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

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Chromium (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.05012	mg/L	100	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0015	0.0015			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.002002		.0019	mg/L	95	70	130			
WG494662ICSA	ICSA	03/31/20 12:36				U	mg/L		-0.002	0.002			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02002		.02023	mg/L	101	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0015	0.0015			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05005		.04908	mg/L	98	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05005	U	.04971	mg/L	99	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05005	U	.04975	mg/L	99	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1001		.10139	mg/L	101	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0015	0.0015			
L57215-13DUP	DUP	03/31/20 13:05			U	U	mg/L				0	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1001		.0987	mg/L	99	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0015	0.0015			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.04645	mg/L	93	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0015	0.0015			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.002002		.00181	mg/L	90	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.002	0.002			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02002		.01733	mg/L	87	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0015	0.0015			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1001		.09439	mg/L	94	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0015	0.0015			
L57215-08SDL	SDL	03/31/20 14:06			.0005	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05005	.0005	.04463	mg/L	88	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05005	.0005	.04476	mg/L	88	75	125	0	20	
L57215-08DUP	DUP	03/31/20 14:15			.0005	.00068	mg/L				31	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05005		.04556	mg/L	91	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1001		.0953	mg/L	95	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0015	0.0015			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.05181	mg/L	104	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0015	0.0015			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.002002		.00195	mg/L	97	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.002	0.002			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02002		.01901	mg/L	95	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0015	0.0015			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05005		.04919	mg/L	98	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05005	U	.04833	mg/L	97	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05005	U	.04928	mg/L	98	75	125	2	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1001		.10154	mg/L	101	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0015	0.0015			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1001		.10154	mg/L	101	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0015	0.0015			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0015	0.0015			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05005		.05022	mg/L	100	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1001		.09975	mg/L	100	90	110			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 U mg/L -0.0015 0.0015

Cobalt (MWMT) M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.053376	mg/L	107	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.00015	0.00015			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.00025025		.000245	mg/L	98	70	130			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02002		.020976	mg/L	105	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.00015	0.00015			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05005		.051135	mg/L	102	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.00019	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05005	.00019	.051716	mg/L	103	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05005	.00019	.051917	mg/L	103	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1001		.10464	mg/L	105	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.00015	0.00015			
L57215-13DUP	DUP	03/31/20 13:05			.00019	.000165	mg/L				14	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1001		.101898	mg/L	102	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.00015	0.00015			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.05092	mg/L	102	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.00015	0.00015			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.00025025		.00022	mg/L	88	70	130			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02002		.0168	mg/L	84	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.00015	0.00015			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1001		.1023	mg/L	102	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.00015	0.00015			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05005	U	.04787	mg/L	96	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05005	U	.04824	mg/L	96	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			U	.000069	mg/L				200	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05005		.04858	mg/L	97	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1001		.1012	mg/L	101	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.00015	0.00015			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.052658	mg/L	105	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.00015	0.00015			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.00025025		.000267	mg/L	107	70	130			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02002		.019664	mg/L	98	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.00015	0.00015			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05005		.050756	mg/L	101	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05005	.00005	.04871	mg/L	97	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05005	.00005	.050377	mg/L	101	75	125	3	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1001		.100015	mg/L	100	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.00015	0.00015			
L57217-02SDL	SDL	04/02/20 18:04			.00008	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1001		.098083	mg/L	98	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.00015	0.00015			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.00015	0.00015			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05005		.049334	mg/L	99	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1001		.098356	mg/L	98	90	110			
WG494824CCB3	CCB	04/02/20 18:22				U	mg/L		-0.00015	0.00015			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.04876	mg/L	98	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0024	0.0024			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.002004		.00185	mg/L	92	70	130			
WG494662ICSA	ICSA	03/31/20 12:36				U	mg/L		-0.002	0.002			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02004		.01831	mg/L	91	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0024	0.0024			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.0501		.04857	mg/L	97	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.0087	.0103	mg/L				18	10	ZG
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.0501	.0087	.0566	mg/L	96	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.0501	.0087	.05654	mg/L	95	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.2505		.25091	mg/L	100	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0024	0.0024			
L57215-13DUP	DUP	03/31/20 13:05			.0087	.01127	mg/L				26	20	RD
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.2505		.24338	mg/L	97	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0024	0.0024			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.04589	mg/L	92	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0024	0.0024			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.002004		.00169	mg/L	84	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.002	0.002			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02004		.01707	mg/L	85	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0024	0.0024			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.2505		.252	mg/L	101	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0024	0.0024			
L57215-08SDL	SDL	03/31/20 14:06			.0053	.00595	mg/L				12	10	ZG
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.0501	.0053	.04985	mg/L	89	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.0501	.0053	.04965	mg/L	89	75	125	0	20	
L57215-08DUP	DUP	03/31/20 14:15			.0053	.00673	mg/L				24	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.0501		.04607	mg/L	92	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.2505		.2532	mg/L	101	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0024	0.0024			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.05125	mg/L	103	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0024	0.0024			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.002004		.00193	mg/L	96	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.002	0.002			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02004		.01818	mg/L	91	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0024	0.0024			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.0501		.05011	mg/L	100	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.0501	.0037	.05327	mg/L	99	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.0501	.0037	.0543	mg/L	101	75	125	2	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.2505		.25217	mg/L	101	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0024	0.0024			
L57217-02SDL	SDL	04/02/20 18:04			.0068	.0067	mg/L				1	10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.2505		.25848	mg/L	103	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0024	0.0024			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0024	0.0024			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.0501		.05165	mg/L	103	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.2505		.25292	mg/L	101	90	110			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 U mg/L -0.0024 0.0024

Cyanide, WAD (MWMT) SM4500-CN I,E-Colorimetric w/ distillation

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494511													
WG494511ICV	ICV	03/27/20 15:58	WI200325-11	.3		.2884	mg/L	96	90	110			
WG494511ICB	ICB	03/27/20 15:58				U	mg/L		-0.003	0.003			
WG494483LRB	LRB	03/27/20 15:59				U	mg/L		-0.003	0.003			
WG494483LFB	LFB	03/27/20 16:00	WI200325-9	.2		.183	mg/L	92	90	110			
WG493948PBS	PBS	03/27/20 16:01				U	mg/L		-0.003	0.003			
L57215-01DUP	DUP	03/27/20 16:03			U	U	mg/L				0	20	RA
L57215-02LFM	LFM	03/27/20 16:04	WI200325-9	.2	U	.1872	mg/L	94	90	110			
WG494511CCV1	CCV	03/27/20 16:08	WI200325-10	.25		.2567	mg/L	103	90	110			
WG494511CCB1	CCB	03/27/20 16:09				U	mg/L		-0.003	0.003			
L57215-08DUP	DUP	03/27/20 16:12			U	U	mg/L				0	20	RA
WG494511CCV2	CCV	03/27/20 16:14	WI200325-10	.25		.26	mg/L	104	90	110			
WG494511CCB2	CCB	03/27/20 16:15				U	mg/L		-0.003	0.003			
WG494943													
WG494943ICV	ICV	04/03/20 23:31	WI200325-11	.3		.2898	mg/L	97	90	110			
WG494943ICB	ICB	04/03/20 23:32				U	mg/L		-0.003	0.003			
WG494945													
WG494945CCV1	CCV	04/04/20 0:15	WI200403-7	.25		.2511	mg/L	100	90	110			
WG494945CCB1	CCB	04/04/20 0:16				U	mg/L		-0.003	0.003			
WG493997PBS	PBS	04/04/20 0:17				U	mg/L		-0.003	0.003			
WG494001PBS	PBS	04/04/20 0:18				U	mg/L		-0.003	0.003			
WG494835LFB	LFB	04/04/20 0:19	WI200325-9	.2		.201	mg/L	101	90	110			
WG494835LRB	LRB	04/04/20 0:19				U	mg/L		-0.003	0.003			
L57215-17LFM	LFM	04/04/20 0:21	WI200325-9	.2	U	.1899	mg/L	95	90	110			
WG494945CCV2	CCV	04/04/20 0:26	WI200403-7	.25		.2529	mg/L	101	90	110			
WG494945CCB2	CCB	04/04/20 0:26				U	mg/L		-0.003	0.003			
L57215-13DUP2	DUP	04/04/20 0:35			U	U	mg/L				0	20	RA
WG494945CCV3	CCV	04/04/20 0:36	WI200403-7	.25		.2543	mg/L	102	90	110			
WG494945CCB3	CCB	04/04/20 0:37				U	mg/L		-0.003	0.003			
WG494945CCV4	CCV	04/04/20 0:42	WI200403-7	.25		.249	mg/L	100	90	110			
WG494945CCB4	CCB	04/04/20 0:43				U	mg/L		-0.003	0.003			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride (MWMT)

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494895													
WG494895ICV	ICV	04/03/20 9:48	WC200331-7	2.004		1.93	mg/L	96	90	110			
WG494895ICB	ICB	04/03/20 9:55				U	mg/L		-0.3	0.3			
WG494895PQV	PQV	04/03/20 9:59	WC200319-3	.3507		.34	mg/L	97	70	130			
WG494895LFB	LFB	04/03/20 10:03	WC191014-1	5.01		4.7	mg/L	94	90	110			
WG493354PBS	PBS	04/03/20 10:07				U	mg/L		-0.3	0.3			
L57101-02AS	AS	04/03/20 10:15	WC191014-1	5.01	2.6	7.65	mg/L	101	90	110			
L57101-02ASD	ASD	04/03/20 10:18	WC191014-1	5.01	2.6	7.61	mg/L	100	90	110	1	20	
WG494895CCV1	CCV	04/03/20 10:48	WC200331-7	2.004		1.91	mg/L	95	90	110			
WG494895CCB1	CCB	04/03/20 10:55				U	mg/L		-0.3	0.3			
WG493948PBS	PBS	04/03/20 11:02				U	mg/L		-0.3	0.3			
L57215-08AS	AS	04/03/20 11:31	WC191014-1	5.01	3.4	8.16	mg/L	95	90	110			
L57215-08DUP	DUP	04/03/20 11:35			3.4	3.68	mg/L				8	20	
WG494895CCV2	CCV	04/03/20 11:39	WC200331-7	2.004		1.94	mg/L	97	90	110			
WG494895CCB2	CCB	04/03/20 11:46				U	mg/L		-0.3	0.3			
WG495130													
WG495130ICV	ICV	04/08/20 11:05	WC200406-1	2.004		2.04	mg/L	102	90	110			
WG495130ICB	ICB	04/08/20 11:09				U	mg/L		-0.3	0.3			
WG495130PQV	PQV	04/08/20 11:12	WC200319-3	.3507		.37	mg/L	106	70	130			
WG495130LFB1	LFB	04/08/20 11:15	WC191014-1	5.01		4.96	mg/L	99	90	110			
WG493997PBS	PBS	04/08/20 11:19				.12	mg/L		-0.3	0.3			
L57215-13AS	AS	04/08/20 11:43	WC191014-1	5.01	2.8	7.51	mg/L	94	90	110			
L57215-13DUP	DUP	04/08/20 11:46			2.8	3.28	mg/L				16	20	
WG495130CCV1	CCV	04/08/20 11:59	WC200406-1	2.004		2.09	mg/L	104	90	110			
WG495130CCB1	CCB	04/08/20 12:06				U	mg/L		-0.3	0.3			
WG494001PBS	PBS	04/08/20 12:12				U	mg/L		-0.3	0.3			
L57215-17AS	AS	04/08/20 12:18	WC191014-1	5.01	1.3	6.32	mg/L	100	90	110			
L57215-17ASD	ASD	04/08/20 12:22	WC191014-1	5.01	1.3	6.26	mg/L	99	90	110	1	20	
WG495130CCV2	CCV	04/08/20 12:51	WC200406-1	2.004		2.13	mg/L	106	90	110			
WG495130CCB2	CCB	04/08/20 12:58				U	mg/L		-0.3	0.3			
WG494003PBS	PBS	04/08/20 13:02				U	mg/L		-0.3	0.3			
WG495130LFB2	LFB	04/08/20 13:16	WC191014-1	5.01		5.07	mg/L	101	90	110			
WG494754PBS	PBS	04/08/20 13:38				U	mg/L		-0.3	0.3			
L58048-04DUP	DUP	04/08/20 13:52			2	2.08	mg/L				4	20	
WG495130CCV3	CCV	04/08/20 13:55	WC200406-1	2.004		2.14	mg/L	107	90	110			
WG495130CCB3	CCB	04/08/20 14:03				U	mg/L		-0.3	0.3			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron (MWMT)

M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	2		1.925	mg/L	96	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.18	0.18			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.15027		.154	mg/L	102	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	100.18		94.22	mg/L	94	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.18	0.18			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	1.0018		.988	mg/L	99	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	1		.966	mg/L	97	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.18	0.18			
L57215-08SDL	SDL	03/30/20 23:35			U	U	mg/L				0	10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	1.0018	U	1.044	mg/L	104	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	1.0018	U	1.029	mg/L	103	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			U	.093	mg/L				200	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	1		.972	mg/L	97	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.18	0.18			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	2		1.947	mg/L	97	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.18	0.18			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.15027		.135	mg/L	90	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	100.18		95.95	mg/L	96	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.18	0.18			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	1.0018		.955	mg/L	95	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	1.0018	U	.97	mg/L	97	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	1.0018	U	.97	mg/L	97	75	125	0	20	
L57215-13DUP	DUP	04/01/20 15:15			U	.289	mg/L				200	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	1		1.003	mg/L	100	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.18	0.18			
L57215-14SDL	SDL	04/01/20 15:31			U	U	mg/L				0	10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	1		.947	mg/L	95	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.18	0.18			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	2		1.903	mg/L	95	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.18	0.18			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.15027		.152	mg/L	101	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	100.18		94	mg/L	94	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.18	0.18			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	1.0018		1.029	mg/L	103	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	1.0018	U	.991	mg/L	99	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	1.0018	U	1.033	mg/L	103	75	125	4	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	1		.975	mg/L	98	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.18	0.18			
L57217-02SDL	SDL	04/02/20 10:07			U	U	mg/L				0	10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	1		.972	mg/L	97	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.18	0.18			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lead (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.05097	mg/L	102	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0003	0.0003			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.0005005		.00049	mg/L	98	70	130			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02002		.02046	mg/L	102	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0003	0.0003			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05005		.04939	mg/L	99	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05005	U	.05004	mg/L	100	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05005	U	.04989	mg/L	100	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.25025		.25284	mg/L	101	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0003	0.0003			
L57215-13DUP	DUP	03/31/20 13:05			U	.00012	mg/L				200	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.25025		.25118	mg/L	100	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0003	0.0003			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.048	mg/L	96	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0003	0.0003			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.0005005		.00041	mg/L	82	70	130			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02002		.01813	mg/L	91	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0003	0.0003			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.25025		.2525	mg/L	101	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0003	0.0003			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05005	U	.04741	mg/L	95	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05005	U	.04774	mg/L	95	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			U	U	mg/L				0	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05005		.04661	mg/L	93	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.25025		.2536	mg/L	101	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0003	0.0003			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.05187	mg/L	104	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0003	0.0003			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.0005005		.00051	mg/L	102	70	130			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02002		.01994	mg/L	100	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05005		.04908	mg/L	98	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05005	U	.04805	mg/L	96	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05005	U	.04935	mg/L	99	75	125	3	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.25025		.24977	mg/L	100	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0003	0.0003			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.25025		.25146	mg/L	100	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0003	0.0003			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05005		.04968	mg/L	99	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.25025		.25167	mg/L	101	90	110			
WG494824CCB3	CCB	04/02/20 18:22				U	mg/L		-0.0003	0.0003			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Lithium (MWM)

M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	2		1.918	mg/L	96	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.024	0.024			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.04008		.0429	mg/L	107	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	.501		.4954	mg/L	99	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.024	0.024			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	1.002		.9688	mg/L	97	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	1		.9701	mg/L	97	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.024	0.024			
L57215-08SDL	SDL	03/30/20 23:35			.009	U	mg/L					10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	1.002	.009	.9799	mg/L	97	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	1.002	.009	.9709	mg/L	96	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			.009	.0092	mg/L				2	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	1		.9655	mg/L	97	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.024	0.024			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	2		1.977	mg/L	99	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.024	0.024			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.04008		.0333	mg/L	83	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	.501		.4958	mg/L	99	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.024	0.024			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	1.002		.9582	mg/L	96	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	1.002	U	.9751	mg/L	97	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	1.002	U	.9797	mg/L	98	75	125	0	20	
L57215-13DUP	DUP	04/01/20 15:15			U	U	mg/L				0	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	1		1.005	mg/L	101	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.024	0.024			
L57215-14SDL	SDL	04/01/20 15:31			U	U	mg/L					10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	1		.9451	mg/L	95	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.024	0.024			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	2		1.952	mg/L	98	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.024	0.024			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.04008		.0413	mg/L	103	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	.501		.5031	mg/L	100	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.024	0.024			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	1.002		.9652	mg/L	96	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	1.002	U	.9698	mg/L	97	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	1.002	U	.9773	mg/L	98	75	125	1	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	1		.9581	mg/L	96	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.024	0.024			
L57217-02SDL	SDL	04/02/20 10:07			.008	U	mg/L					10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	1		.947	mg/L	95	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.024	0.024			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium (MWMT)

M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	100		96.47	mg/L	96	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.6	0.6			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	1		1.02	mg/L	102	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	250		250.6	mg/L	100	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.6	0.6			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	49.99771		48.48	mg/L	97	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	50		47.79	mg/L	96	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.6	0.6			
L57215-08SDL	SDL	03/30/20 23:35			.6	U	mg/L					10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	49.99771	.6	50.18	mg/L	99	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	49.99771	.6	49.58	mg/L	98	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			.6	.74	mg/L				21	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	50		48.3	mg/L	97	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.6	0.6			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	100		97.38	mg/L	97	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.6	0.6			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	1		1.02	mg/L	102	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	250		247.2	mg/L	99	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.6	0.6			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	49.99771		46.39	mg/L	93	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	49.99771	.9	49.11	mg/L	96	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	49.99771	.9	49.4	mg/L	97	75	125	1	20	
L57215-13DUP	DUP	04/01/20 15:15			.9	1.08	mg/L				18	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	50		49.59	mg/L	99	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.6	0.6			
L57215-14SDL	SDL	04/01/20 15:31			1.4	1.45	mg/L				4	10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	50		47.07	mg/L	94	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.6	0.6			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	100		97.58	mg/L	98	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.6	0.6			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	1		.87	mg/L	87	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	250		254.5	mg/L	102	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.6	0.6			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	49.99771		49.78	mg/L	100	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	49.99771	.2	49.15	mg/L	98	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	49.99771	.2	49.43	mg/L	98	75	125	1	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	50		49.31	mg/L	99	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.6	0.6			
L57217-02SDL	SDL	04/02/20 10:07			3.8	3.05	mg/L				20	10	ZG
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	50		49.15	mg/L	98	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.6	0.6			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Manganese (MWM)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.04888	mg/L	98	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0012	0.0012			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.002004		.00193	mg/L	96	70	130			
WG494662ICSA	ICSA	03/31/20 12:36		.00062		.00062	mg/L		-0.002	0.002			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02004		.02144	mg/L	107	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0012	0.0012			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.0501		.04861	mg/L	97	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.0011	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.0501	.0011	.04987	mg/L	97	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.0501	.0011	.0495	mg/L	97	75	125	1	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1002		.10332	mg/L	103	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0012	0.0012			
L57215-13DUP	DUP	03/31/20 13:05			.0011	.00069	mg/L				46	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1002		.1014	mg/L	101	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0012	0.0012			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.04983	mg/L	100	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0012	0.0012			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.002004		.00175	mg/L	87	70	130			
WG494534ICSA	ICSA	03/31/20 13:23		.00059		.00059	mg/L		-0.002	0.002			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02004		.01705	mg/L	85	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0012	0.0012			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1002		.1018	mg/L	102	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0012	0.0012			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.0501	U	.04856	mg/L	97	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.0501	U	.04861	mg/L	97	75	125	0	20	
L57215-08DUP	DUP	03/31/20 14:15			U	.00119	mg/L				200	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.0501		.04934	mg/L	98	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1002		.1016	mg/L	101	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0012	0.0012			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.05014	mg/L	100	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0012	0.0012			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.002004		.00201	mg/L	100	70	130			
WG494824ICSA	ICSA	04/02/20 17:39		.00063		.00063	mg/L		-0.002	0.002			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02004		.01997	mg/L	100	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0012	0.0012			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.0501		.05013	mg/L	100	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.0501	U	.04904	mg/L	98	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.0501	U	.04947	mg/L	99	75	125	1	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1002		.09785	mg/L	98	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0012	0.0012			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1002		.09712	mg/L	97	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0012	0.0012			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0012	0.0012			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.0501		.04836	mg/L	97	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1002		.09844	mg/L	98	90	110			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22

U mg/L -0.0012 0.0012

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury (MWMT)

M7470A CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494438													
WG494438ICV	ICV	03/27/20 12:51	HG200224-3	.004995		.00474	mg/L	95	95	105			
WG494438ICB	ICB	03/27/20 12:52				U	mg/L		-0.0002	0.0002			
WG494439													
WG494439CCV1	CCV	03/27/20 13:25	HG200224-3	.004995		.00496	mg/L	99	90	110			
WG494439CCB1	CCB	03/27/20 13:26				U	mg/L		-0.0006	0.0006			
WG494439PQV	PQV	03/27/20 13:27	HG200323-3	.001001		.00107	mg/L	107	70	130			
WG493948PBS	PBS	03/27/20 13:28				U	mg/L		-0.0006	0.0006			
WG493948LFB1	LFB	03/27/20 13:29	HG200323-4	.002002		.00204	mg/L	102	85	115			
WG494439CCV2	CCV	03/27/20 13:37	HG200224-3	.004995		.0049	mg/L	98	90	110			
WG494439CCB2	CCB	03/27/20 13:37				U	mg/L		-0.0006	0.0006			
L57215-08MS2	MS	03/27/20 13:39	HG200323-4	.002002	U	.00201	mg/L	100	85	115			
L57215-08MSD2	MSD	03/27/20 13:40	HG200323-4	.002002	U	.00207	mg/L	103	85	115	3	20	
L57215-08DUP	DUP	03/27/20 13:41			U	U	mg/L				0	20	RA
WG494439CCV3	CCV	03/27/20 13:42	HG200224-3	.004995		.0049	mg/L	98	90	110			
WG494439CCB3	CCB	03/27/20 13:43				U	mg/L		-0.0006	0.0006			
WG494610													
WG494610ICV	ICV	03/31/20 15:30	HG200224-3	.004995		.00484	mg/L	97	95	105			
WG494610ICB	ICB	03/31/20 15:31				U	mg/L		-0.0002	0.0002			
WG494613													
WG494613CCV1	CCV	03/31/20 16:53	HG200224-3	.004995		.00484	mg/L	97	90	110			
WG494613CCB1	CCB	03/31/20 16:54				U	mg/L		-0.0006	0.0006			
WG494613PQV	PQV	03/31/20 16:55	HG200330-2	.001001		.00089	mg/L	89	70	130			
WG493997PBS	PBS	03/31/20 16:56				U	mg/L		-0.0006	0.0006			
WG493997LFB1	LFB	03/31/20 16:57	HG200330-3	.002002		.00183	mg/L	91	85	115			
L57215-13MS2	MS	03/31/20 17:03	HG200330-3	.002002	U	.00195	mg/L	97	85	115			
L57215-13MSD2	MSD	03/31/20 17:04	HG200330-3	.002002	U	.00183	mg/L	91	85	115	6	20	
WG494613CCV2	CCV	03/31/20 17:05	HG200224-3	.004995		.00475	mg/L	95	90	110			
WG494613CCB2	CCB	03/31/20 17:05				U	mg/L		-0.0006	0.0006			
L57215-13DUP	DUP	03/31/20 17:06			U	U	mg/L				0	20	RA
WG494613CCV3	CCV	03/31/20 17:10	HG200224-3	.004995		.00472	mg/L	94	90	110			
WG494613CCB3	CCB	03/31/20 17:11				U	mg/L		-0.0006	0.0006			
WG494698													
WG494698ICV	ICV	04/01/20 14:09	HG200224-3	.004995		.00512	mg/L	103	95	105			
WG494698ICB	ICB	04/01/20 14:10				U	mg/L		-0.0002	0.0002			
WG494701													
WG494701CCV1	CCV	04/01/20 15:14	HG200224-3	.004995		.00488	mg/L	98	90	110			
WG494701CCB1	CCB	04/01/20 15:15				U	mg/L		-0.0006	0.0006			
WG494701PQV	PQV	04/01/20 15:16	HG200330-2	.001001		.00098	mg/L	98	70	130			
WG494001PBS	PBS	04/01/20 15:17				U	mg/L		-0.0006	0.0006			
WG494001LFB1	LFB	04/01/20 15:18	HG200330-3	.002002		.0019	mg/L	95	85	115			
L57215-17MS2	MS	04/01/20 15:20	HG200330-3	.002002	U	.00203	mg/L	101	85	115			
L57215-17MSD2	MSD	04/01/20 15:21	HG200330-3	.002002	U	.00208	mg/L	104	85	115	2	20	
WG494701CCV2	CCV	04/01/20 15:26	HG200224-3	.004995		.00485	mg/L	97	90	110			
WG494701CCB2	CCB	04/01/20 15:27				U	mg/L		-0.0006	0.0006			
WG494701CCV3	CCV	04/01/20 15:31	HG200224-3	.004995		.00477	mg/L	95	90	110			
WG494701CCB3	CCB	04/01/20 15:32				U	mg/L		-0.0006	0.0006			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Molybdenum (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.0199		.01968	mg/L	99	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0006	0.0006			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.000501		.00048	mg/L	96	70	130			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	1.02004		1.0648	mg/L	104	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0006	0.0006			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.0501		.05005	mg/L	100	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.1193	.12955	mg/L				9	10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.0501	.1193	.16958	mg/L	100	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.0501	.1193	.17129	mg/L	104	75	125	1	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1002		.10443	mg/L	104	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0006	0.0006			
L57215-13DUP	DUP	03/31/20 13:05			.1193	.10997	mg/L				8	20	
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1002		.10222	mg/L	102	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0006	0.0006			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.0199		.01867	mg/L	94	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0006	0.0006			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.000501		.00044	mg/L	88	70	130			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	1.02004		.9922	mg/L	97	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0006	0.0006			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1002		.1025	mg/L	102	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0006	0.0006			
L57215-08SDL	SDL	03/31/20 14:06			.0348	.03395	mg/L				2	10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.0501	.0348	.08693	mg/L	104	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.0501	.0348	.08666	mg/L	104	75	125	0	20	
L57215-08DUP	DUP	03/31/20 14:15			.0348	.04388	mg/L				23	20	RD
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.0501		.04543	mg/L	91	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1002		.1019	mg/L	102	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0006	0.0006			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.0199		.02021	mg/L	102	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0006	0.0006			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.000501		.00047	mg/L	94	70	130			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	1.02004		1.06694	mg/L	105	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0006	0.0006			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.0501		.04945	mg/L	99	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.0501	.0303	.07805	mg/L	95	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.0501	.0303	.07963	mg/L	98	75	125	2	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1002		.09997	mg/L	100	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0006	0.0006			
L57217-02SDL	SDL	04/02/20 18:04			.0684	.06735	mg/L				2	10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1002		.0982	mg/L	98	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0006	0.0006			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0006	0.0006			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.0501		.04857	mg/L	97	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1002		.09909	mg/L	99	90	110			
WG494824CCB3	CCB	04/02/20 18:22				U	mg/L		-0.0006	0.0006			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nickel (MWMt)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.04924	mg/L	98	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0012	0.0012			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.001		.0009	mg/L	90	70	130			
WG494662ICSA	ICSA	03/31/20 12:36				U	mg/L		-0.001	0.001			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02		.01944	mg/L	97	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0012	0.0012			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05		.04904	mg/L	98	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05	U	.04921	mg/L	98	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05	U	.04935	mg/L	99	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.25		.25094	mg/L	100	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0012	0.0012			
L57215-13DUP	DUP	03/31/20 13:05			U	U	mg/L				0	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.25		.24584	mg/L	98	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0012	0.0012			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.04679	mg/L	94	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0012	0.0012			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.001		.00094	mg/L	94	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.001	0.001			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02		.0171	mg/L	86	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0012	0.0012			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.25		.2374	mg/L	95	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0012	0.0012			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05	U	.04503	mg/L	90	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05	U	.0449	mg/L	90	75	125	0	20	
L57215-08DUP	DUP	03/31/20 14:15			U	.00051	mg/L				200	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05		.0458	mg/L	92	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.25		.24	mg/L	96	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0012	0.0012			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.05138	mg/L	103	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0012	0.0012			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.001		.00098	mg/L	98	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.001	0.001			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02		.01818	mg/L	91	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0012	0.0012			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05		.04907	mg/L	98	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05	U	.04839	mg/L	97	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05	U	.04931	mg/L	99	75	125	2	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.25		.25196	mg/L	101	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0012	0.0012			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.25		.25385	mg/L	102	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0012	0.0012			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0012	0.0012			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05		.0505	mg/L	101	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.25		.25268	mg/L	101	90	110			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 U mg/L -0.0012 0.0012

Nitrate/Nitrite as N (MWMT) M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494450													
WG494450ICV	ICV	03/26/20 21:56	WI200213-7	2.416		2.485	mg/L	103	90	110			
WG494450ICB	ICB	03/26/20 21:57				U	mg/L		-0.02	0.02			
WG494452													
WG494452CCV1	CCV	03/26/20 23:28	WI200320-3	2		2.02	mg/L	101	90	110			
WG494452CCB1	CCB	03/26/20 23:31				U	mg/L		-0.02	0.02			
WG494452LFB	LFB	03/26/20 23:32	WI191004-3	2		2.012	mg/L	101	90	110			
WG493948PBS	PBS	03/26/20 23:34				U	mg/L		-0.02	0.02			
WG494452CCV2	CCV	03/26/20 23:45	WI200320-3	2		2.004	mg/L	100	90	110			
WG494452CCB2	CCB	03/26/20 23:48				U	mg/L		-0.02	0.02			
L57215-08DUP	DUP	03/26/20 23:55			U	U	mg/L				0	20	RA
WG494452CCV3	CCV	03/26/20 23:58	WI200320-3	2		1.966	mg/L	98	90	110			
WG494452CCB3	CCB	03/27/20 0:01				U	mg/L		-0.02	0.02			
WG494705													
WG494705ICV	ICV	04/01/20 0:36	WI200213-7	2.416		2.431	mg/L	101	90	110			
WG494705ICB	ICB	04/01/20 0:37				U	mg/L		-0.02	0.02			
WG494707													
WG494707CCV1	CCV	04/01/20 1:18	WI200331-17	2		2.012	mg/L	101	90	110			
WG494707CCB1	CCB	04/01/20 1:21				U	mg/L		-0.02	0.02			
WG494707LFB	LFB	04/01/20 1:22	WI200331-15	2		2.011	mg/L	101	90	110			
WG493997PBS	PBS	04/01/20 1:23				U	mg/L		-0.02	0.02			
L57215-13DUP	DUP	04/01/20 1:32			U	U	mg/L				0	20	RA
WG494707CCV2	CCV	04/01/20 1:35	WI200331-17	2		2.017	mg/L	101	90	110			
WG494707CCB2	CCB	04/01/20 1:37				U	mg/L		-0.02	0.02			
WG494707CCV3	CCV	04/01/20 1:44	WI200331-17	2		2.029	mg/L	101	90	110			
WG494707CCB3	CCB	04/01/20 1:47				U	mg/L		-0.02	0.02			
WG494708													
WG494708CCV1	CCV	04/01/20 2:20	WI200331-17	2		2.026	mg/L	101	90	110			
WG494708CCB1	CCB	04/01/20 2:23				U	mg/L		-0.02	0.02			
WG494708LFB	LFB	04/01/20 2:24	WI200331-15	2		2.021	mg/L	101	90	110			
WG494001PBS	PBS	04/01/20 2:25				U	mg/L		-0.02	0.02			
WG494708CCV2	CCV	04/01/20 2:37	WI200331-17	2		2.049	mg/L	102	90	110			
WG494708CCB2	CCB	04/01/20 2:39				U	mg/L		-0.02	0.02			
WG494708CCV3	CCV	04/01/20 2:46	WI200331-17	2		2.047	mg/L	102	90	110			
WG494708CCB3	CCB	04/01/20 2:49				U	mg/L		-0.02	0.02			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrite as N (MWM)

M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494450													
WG494450ICV	ICV	03/26/20 21:56	WI200213-7	.609		.624	mg/L	102	90	110			
WG494450ICB	ICB	03/26/20 21:57				U	mg/L		-0.01	0.01			
WG494452													
WG494452CCV1	CCV	03/26/20 23:28	WI200320-3	1		.965	mg/L	97	90	110			
WG494452CCB1	CCB	03/26/20 23:31				U	mg/L		-0.01	0.01			
WG494452LFB	LFB	03/26/20 23:32	WI191004-3	1		1.001	mg/L	100	90	110			
WG493948PBS	PBS	03/26/20 23:34				U	mg/L		-0.01	0.01			
WG494452CCV2	CCV	03/26/20 23:45	WI200320-3	1		.965	mg/L	97	90	110			
WG494452CCB2	CCB	03/26/20 23:48				U	mg/L		-0.01	0.01			
L57215-08DUP	DUP	03/26/20 23:55			U	U	mg/L				0	20	RA
WG494452CCV3	CCV	03/26/20 23:58	WI200320-3	1		.966	mg/L	97	90	110			
WG494452CCB3	CCB	03/27/20 0:01				U	mg/L		-0.01	0.01			
WG494705													
WG494705ICV	ICV	04/01/20 0:36	WI200213-7	.609		.618	mg/L	101	90	110			
WG494705ICB	ICB	04/01/20 0:37				U	mg/L		-0.01	0.01			
WG494707													
WG494707CCV1	CCV	04/01/20 1:18	WI200331-17	1		.996	mg/L	100	90	110			
WG494707CCB1	CCB	04/01/20 1:21				U	mg/L		-0.01	0.01			
WG494707LFB	LFB	04/01/20 1:22	WI200331-15	1		1	mg/L	100	90	110			
WG493997PBS	PBS	04/01/20 1:23				U	mg/L		-0.01	0.01			
L57215-13DUP	DUP	04/01/20 1:32			U	U	mg/L				0	20	RA
WG494707CCV2	CCV	04/01/20 1:35	WI200331-17	1		.99	mg/L	99	90	110			
WG494707CCB2	CCB	04/01/20 1:37				U	mg/L		-0.01	0.01			
WG494707CCV3	CCV	04/01/20 1:44	WI200331-17	1		.997	mg/L	100	90	110			
WG494707CCB3	CCB	04/01/20 1:47				U	mg/L		-0.01	0.01			
WG494708													
WG494708CCV1	CCV	04/01/20 2:20	WI200331-17	1		1	mg/L	100	90	110			
WG494708CCB1	CCB	04/01/20 2:23				U	mg/L		-0.01	0.01			
WG494708LFB	LFB	04/01/20 2:24	WI200331-15	1		.989	mg/L	99	90	110			
WG494001PBS	PBS	04/01/20 2:25				U	mg/L		-0.01	0.01			
WG494708CCV2	CCV	04/01/20 2:37	WI200331-17	1		.934	mg/L	93	90	110			
WG494708CCB2	CCB	04/01/20 2:39				U	mg/L		-0.01	0.01			
WG494708CCV3	CCV	04/01/20 2:46	WI200331-17	1		.94	mg/L	94	90	110			
WG494708CCB3	CCB	04/01/20 2:49				U	mg/L		-0.01	0.01			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrogen, total Kjeldahl (MWMT)

M351.2 - Block Digestor

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494529													
WG494529ICV	ICV	03/28/20 19:28	WI200229-10	4		4.15	mg/L	104	90	110			
WG494529ICB	ICB	03/28/20 19:29				U	mg/L		-0.2	0.2			
WG494475PBS	PBS	03/28/20 19:30				U	%		-0.2	0.2			
WG494475LFB	LFB	03/28/20 19:31	WI200229-6	2.5		2.63	mg/L	105	90	110			
WG493948PBS	PBS	03/28/20 19:32				U	%		-0.2	0.2			
WG494529CCV1	CCV	03/28/20 19:41	WI200229-8	2.5		2.55	mg/L	102	90	110			
WG494529CCB1	CCB	03/28/20 19:43				U	mg/L		-0.2	0.2			
L57215-08DUP	DUP	03/28/20 19:46			U	U	mg/L				0	20	RA
WG494529CCV2	CCV	03/28/20 19:49	WI200229-8	2.5		2.57	mg/L	103	90	110			
WG494529CCB2	CCB	03/28/20 19:50				U	mg/L		-0.2	0.2			
WG495090													
WG495090ICV	ICV	04/07/20 23:48	WI200330-7	4		3.96	mg/L	99	90	110			
WG495090ICB	ICB	04/07/20 23:49				U	mg/L		-0.2	0.2			
WG494979PBS	PBS	04/07/20 23:50				U	%		-0.2	0.2			
WG494979LFB	LFB	04/07/20 23:51	WI200229-6	2.5		2.44	mg/L	98	90	110			
WG493997PBS	PBS	04/07/20 23:52				U	%		-0.2	0.2			
L57215-13MS	MS	04/07/20 23:59	WI200229-6	2.5	.2	2.94	mg/L	110	90	110			
L57215-13DUP	DUP	04/08/20 0:00			.2	.2	mg/L				0	20	RA
WG495090CCV1	CCV	04/08/20 0:01	WI200330-5	2.5		2.48	mg/L	99	90	110			
WG495090CCB1	CCB	04/08/20 0:02				U	mg/L		-0.2	0.2			
WG495090CCV2	CCV	04/08/20 0:08	WI200330-5	2.5		2.43	mg/L	97	90	110			
WG495090CCB2	CCB	04/08/20 0:09				U	mg/L		-0.2	0.2			
WG495092													
WG495092CCV1	CCV	04/08/20 0:14	WI200330-5	2.5		2.49	mg/L	100	90	110			
WG495092CCB1	CCB	04/08/20 0:15				U	mg/L		-0.2	0.2			
WG495032PBS	PBS	04/08/20 0:16				U	%		-0.2	0.2			
WG495032LFB	LFB	04/08/20 0:17	WI200229-6	2.5		2.46	mg/L	98	90	110			
WG494001PBS	PBS	04/08/20 0:18				U	%		-0.2	0.2			
L57215-17MS	MS	04/08/20 0:21	WI200229-6	2.5	U	2.79	mg/L	112	90	110			M1
WG495092CCV2	CCV	04/08/20 0:27	WI200330-5	2.5		2.42	mg/L	97	90	110			
WG495092CCB2	CCB	04/08/20 0:29				U	mg/L		-0.2	0.2			
WG494003PBS	PBS	04/08/20 0:33				U	%		-0.2	0.2			
WG495092CCV3	CCV	04/08/20 0:41	WI200330-5	2.5		2.46	mg/L	98	90	110			
WG495092CCB3	CCB	04/08/20 0:42				U	mg/L		-0.2	0.2			
L57217-11DUP	DUP	04/08/20 0:43			U	U	mg/L				0	20	RA
WG495092CCV4	CCV	04/08/20 0:46	WI200330-5	2.5		2.47	mg/L	99	90	110			
WG495092CCB4	CCB	04/08/20 0:47				U	mg/L		-0.2	0.2			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Ph		M9045D/M9040C											
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG492239													
L57215-08DUP	DUP	02/21/20 13:32			9.2	9.2	units				0	20	
L57215-13DUP	DUP	02/21/20 14:00			8.4	8.5	units				1	20	
WG492239CCV1	CCV	02/21/20 14:37	PCN58503	4		4.1	units	103	3.9	4.1			
WG492239CCV2	CCV	02/21/20 14:42	PCN58503	4		4.1	units	103	3.9	4.1			
WG492239CCV3	CCV	02/21/20 14:46	PCN58503	4		4.1	units	103	3.9	4.1			
WG492239ICV	ICV	02/21/20 15:05	PCN58503	4		4	units	100	3.9	4.1			
WG494692													
WG494692ICV	ICV	03/20/20 9:00	PCN58541	4		4	units	100	3.9	4.1			
WG493948PBS	PBS	03/20/20 10:00				6.2	units						
WG494692CCV	CCV	03/20/20 17:00	PCN58541	4		4	units	100	3.9	4.1			
WG494694													
WG494694ICV	ICV	03/25/20 1:08	PCN58541	4		4	units	100	3.9	4.1			
WG493997PBS	PBS	03/25/20 6:51				5.7	units						
WG494694CCV	CCV	03/27/20 15:59	PCN58541	4		4	units	100	3.9	4.1			
WG494888													
WG494001PBS	PBS	03/27/20 12:00				5.3	units						
WG494888ICV	ICV	03/27/20 12:00	PCN58541	4		4	units	100	3.9	4.1			
WG494888CCV	CCV	03/27/20 17:00	PCN58541	4		4.1	units	103	3.9	4.1			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Phosphorus (MWMt)

M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	5.0075		5.11	mg/L	102	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.3	0.3			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.502		.51	mg/L	102	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	5.02		4.88	mg/L	97	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.3	0.3			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	1.004		1.01	mg/L	101	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	2.50375		2.57	mg/L	103	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.3	0.3			
L57215-08SDL	SDL	03/30/20 23:35			U	U	mg/L					10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	1.004	U	1.09	mg/L	109	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	1.004	U	1.05	mg/L	105	75	125	4	20	
L57215-08DUP	DUP	03/30/20 23:46			U	U	mg/L				0	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	2.50375		2.57	mg/L	103	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.3	0.3			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	5.0075		5.26	mg/L	105	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.3	0.3			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.502		.49	mg/L	98	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	5.02		5.05	mg/L	101	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.3	0.3			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	1.004		1.03	mg/L	103	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	1.004	U	1.1	mg/L	110	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	1.004	U	1.1	mg/L	110	75	125	0	20	
L57215-13DUP	DUP	04/01/20 15:15			U	.13	mg/L				200	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	2.50375		2.68	mg/L	107	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.3	0.3			
L57215-14SDL	SDL	04/01/20 15:31			U	U	mg/L					10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	2.50375		2.56	mg/L	102	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.3	0.3			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	5.0075		5.1	mg/L	102	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.3	0.3			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.502		.5	mg/L	100	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	5.02		5.1	mg/L	102	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.3	0.3			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	1.004		1.08	mg/L	108	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	1.004	U	1.04	mg/L	104	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	1.004	U	1.12	mg/L	112	75	125	7	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	2.50375		2.57	mg/L	103	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.3	0.3			
L57217-02SDL	SDL	04/02/20 10:07			U	U	mg/L					10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	2.50375		2.61	mg/L	104	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.3	0.3			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Potassium (MWMT)

M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	20		19.66	mg/L	98	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.6	0.6			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	1		1.02	mg/L	102	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	25		25.23	mg/L	101	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.6	0.6			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	99.95798		99.53	mg/L	100	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	10		9.85	mg/L	99	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.6	0.6			
L57215-08SDL	SDL	03/30/20 23:35			1.1	U	mg/L					10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	99.95798	1.1	102.3	mg/L	101	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	99.95798	1.1	101.4	mg/L	100	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			1.1	1.33	mg/L				19	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	10		9.86	mg/L	99	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.6	0.6			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	20		20.03	mg/L	100	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.6	0.6			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	1		1.05	mg/L	105	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	25		25.33	mg/L	101	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.6	0.6			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	99.95798		94.2	mg/L	94	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	99.95798	.7	98.69	mg/L	98	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	99.95798	.7	99.39	mg/L	99	75	125	1	20	
L57215-13DUP	DUP	04/01/20 15:15			.7	1.17	mg/L				50	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	10		10.2	mg/L	102	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.6	0.6			
L57215-14SDL	SDL	04/01/20 15:31			2.8	2.95	mg/L				5	10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	10		9.57	mg/L	96	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.6	0.6			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	20		19.87	mg/L	99	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.6	0.6			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	1		.91	mg/L	91	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	25		25.88	mg/L	104	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.6	0.6			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	99.95798		100.7	mg/L	101	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	99.95798	.9	100.4	mg/L	100	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	99.95798	.9	100.9	mg/L	100	75	125	0	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	10		9.93	mg/L	99	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.6	0.6			
L57217-02SDL	SDL	04/02/20 10:07			2	1.65	mg/L				18	10	ZG
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	10		9.91	mg/L	99	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.6	0.6			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Residue, Filterable (TDS) @180C (MWM) SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494446													
WG494446PBW	PBW	03/26/20 17:40				U	mg/L		-20	20			
WG494446LCSW	LCSW	03/26/20 17:42	PCN60944	1000		1010	mg/L	101	80	120			
WG493948PBS	PBS	03/26/20 17:45				U	mg/L		-40	40			
L57215-08DUP	DUP	03/26/20 18:10			226	246	mg/L				8	10	
WG494570													
WG494570PBW	PBW	03/30/20 11:23				U	mg/L		-20	20			
WG494570LCSW	LCSW	03/30/20 11:27	PCN60944	1000		1010	mg/L	101	80	120			
WG493997PBS	PBS	03/30/20 11:32				U	mg/L		-40	40			
L57215-13DUP	DUP	03/30/20 12:00			110	132	mg/L				18	10	RA
WG494730													
WG494730PBW	PBW	04/01/20 9:45				U	mg/L		-20	20			
WG494730LCSW	LCSW	04/01/20 9:48	PCN60937	1000		1090	mg/L	109	80	120			
WG494001PBS	PBS	04/01/20 9:52				U	mg/L		-40	40			
L57217-05DUP	DUP	04/01/20 10:30			330	318	mg/L				4	10	

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.05071	mg/L	101	90	110			
WG494662ICB	ICB	03/31/20 12:33				.00016	mg/L		-0.0003	0.0003			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.00025		.00026	mg/L	104	70	130			
WG494662ICSA	ICSA	03/31/20 12:36		.0001		.0001	mg/L		-0.0003	0.0003			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02		.01976	mg/L	99	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0003	0.0003			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05		.04792	mg/L	96	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.0002	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05	.0002	.04861	mg/L	97	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05	.0002	.04823	mg/L	96	75	125	1	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.25		.2508	mg/L	100	90	110			
WG494662CCB1	CCB	03/31/20 13:03				.00028	mg/L		-0.0003	0.0003			
L57215-13DUP	DUP	03/31/20 13:05			.0002	.00023	mg/L				14	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.25		.2444	mg/L	98	90	110			
WG494662CCB2	CCB	03/31/20 13:14				.00022	mg/L		-0.0003	0.0003			
WG494716													
WG494716ICV	ICV	04/01/20 8:47	MS200331-1	.05		.04956	mg/L	99	90	110			
WG494716ICB	ICB	04/01/20 8:49				.00011	mg/L		-0.0003	0.0003			
WG494716PQV	PQV	04/01/20 8:50	MS200327-4	.00025		.00027	mg/L	108	70	130			
WG494716ICSA	ICSA	04/01/20 8:52		.00012		.00012	mg/L		-0.0003	0.0003			
WG494716ICSAB	ICSAB	04/01/20 8:54	MS200203-2	.02		.01922	mg/L	96	80	120			
WG493948PBS	PBS	04/01/20 8:58				U	mg/L		-0.0003	0.0003			
WG494716CCV1	CCV	04/01/20 9:11	MS200228-5	.25		.2481	mg/L	99	90	110			
WG494716CCB1	CCB	04/01/20 9:13				.00015	mg/L		-0.0003	0.0003			
L57215-08SDL	SDL	04/01/20 9:19			.0005	.0006	mg/L				20	10	ZG
L57215-08MS1	MS	04/01/20 9:21	MS200120-3	.05	.0005	.04461	mg/L	88	75	125			
L57215-08MSD1	MSD	04/01/20 9:23	MS200120-3	.05	.0005	.04447	mg/L	88	75	125	0	20	
L57215-08DUP	DUP	04/01/20 9:24			.0005	.00065	mg/L				26	20	RA
WG493948LFB2	LFB	04/01/20 9:26	MS200120-3	.05		.04505	mg/L	90	80	120			
WG494716CCV2	CCV	04/01/20 9:28	MS200228-5	.25		.2479	mg/L	99	90	110			
WG494716CCB2	CCB	04/01/20 9:30				.00015	mg/L		-0.0003	0.0003			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.05151	mg/L	103	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0003	0.0003			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.00025		.00031	mg/L	124	70	130			
WG494824ICSA	ICSA	04/02/20 17:39		.00018		.00018	mg/L		-0.0003	0.0003			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02		.01981	mg/L	99	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05		.04907	mg/L	98	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05	.0002	.04778	mg/L	95	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05	.0002	.04996	mg/L	100	75	125	4	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.25		.25089	mg/L	100	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0003	0.0003			
L57217-02SDL	SDL	04/02/20 18:04			.0015	.0013	mg/L				13	10	ZG
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.25		.26156	mg/L	105	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0003	0.0003			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05		.05119	mg/L	102	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.25		.25495	mg/L	102	90	110			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22

U mg/L -0.0003 0.0003

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Silver (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.02004		.02193	mg/L	109	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0003	0.0003			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.0005015		.00045	mg/L	90	70	130			
WG494662ICSA	ICSA	03/31/20 12:36				U	mg/L		-0.0005	0.0005			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.01002		.01023	mg/L	102	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0003	0.0003			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.01002		.01058	mg/L	106	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.01002	U	.0103	mg/L	103	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.01002	U	.01032	mg/L	103	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.025075		.02581	mg/L	103	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0003	0.0003			
L57215-13DUP	DUP	03/31/20 13:05			U	U	mg/L				0	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.025075		.02556	mg/L	102	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0003	0.0003			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.02004		.02096	mg/L	105	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0003	0.0003			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.0005015		.00043	mg/L	86	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.0005	0.0005			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.01002		.00946	mg/L	94	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0003	0.0003			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.025075		.02504	mg/L	100	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0003	0.0003			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.01002	U	.0096	mg/L	96	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.01002	U	.00967	mg/L	97	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			U	U	mg/L				0	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.01002		.00979	mg/L	98	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.025075		.02497	mg/L	100	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0003	0.0003			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.02004		.02121	mg/L	106	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0003	0.0003			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.0005015		.00043	mg/L	86	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.0005	0.0005			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.01002		.00973	mg/L	97	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.01002		.0101	mg/L	101	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.01002	U	.00986	mg/L	98	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.01002	U	.00987	mg/L	99	75	125	0	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.025075		.02443	mg/L	97	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0003	0.0003			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.025075		.02442	mg/L	97	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0003	0.0003			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.01002		.00997	mg/L	100	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.025075		.02463	mg/L	98	90	110			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 U mg/L -0.0003 0.0003

Sodium (MWMT) M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	100		98.79	mg/L	99	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.6	0.6			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.999		1.01	mg/L	101	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	24.975		25.4	mg/L	102	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.6	0.6			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	100.0046		98.88	mg/L	99	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	50		49.09	mg/L	98	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.6	0.6			
L57215-08SDL	SDL	03/30/20 23:35			70.9	71.95	mg/L				1	10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	100.0046	70.9	172.2	mg/L	101	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	100.0046	70.9	171	mg/L	100	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			70.9	74.37	mg/L				5	20	
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	50		49.27	mg/L	99	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.6	0.6			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	100		99.28	mg/L	99	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.6	0.6			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.999		1.03	mg/L	103	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	24.975		25.23	mg/L	101	80	120			
WG493997PBS	PBS	04/01/20 14:40				.32	mg/L		-0.6	0.6			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	100.0046		93.65	mg/L	94	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	100.0046	21.8	120	mg/L	98	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	100.0046	21.8	120.7	mg/L	99	75	125	1	20	
L57215-13DUP	DUP	04/01/20 15:15			21.8	28.74	mg/L				27	20	RD
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	50		50.39	mg/L	101	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.6	0.6			
L57215-14SDL	SDL	04/01/20 15:31			17.8	18.2	mg/L				2	10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	50		47.53	mg/L	95	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.6	0.6			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	100		100.1	mg/L	100	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.6	0.6			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.999		1.02	mg/L	102	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	24.975		25.95	mg/L	104	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.6	0.6			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	100.0046		100.2	mg/L	100	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	100.0046	8.1	107.5	mg/L	99	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	100.0046	8.1	107.6	mg/L	99	75	125	0	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	50		50.06	mg/L	100	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.6	0.6			
L57217-02SDL	SDL	04/02/20 10:07			45.6	46.65	mg/L				2	10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	50		49.81	mg/L	100	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.6	0.6			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Strontium (MWMT)

M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	2		1.946	mg/L	97	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.027	0.027			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.045135		.0466	mg/L	103	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	.5015		.4794	mg/L	96	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.027	0.027			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	.5015		.4905	mg/L	98	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	1		.9722	mg/L	97	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.027	0.027			
L57215-08SDL	SDL	03/30/20 23:35			.048	.065	mg/L				35	10	ZG
L57215-08MS2	MS	03/30/20 23:39	II200302-4	.5015	.048	.547	mg/L	100	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	.5015	.048	.5423	mg/L	99	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			.048	.0575	mg/L				18	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	1		.9731	mg/L	97	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.027	0.027			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	2		2.002	mg/L	100	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.027	0.027			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.045135		.0402	mg/L	89	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	.5015		.4927	mg/L	98	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.027	0.027			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	.5015		.4736	mg/L	94	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	.5015	.036	.5387	mg/L	100	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	.5015	.036	.5422	mg/L	101	75	125	1	20	
L57215-13DUP	DUP	04/01/20 15:15			.036	.0448	mg/L				22	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	1		1.017	mg/L	102	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.027	0.027			
L57215-14SDL	SDL	04/01/20 15:31			.065	U	mg/L					10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	1		.96	mg/L	96	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.027	0.027			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	2		1.93	mg/L	97	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.027	0.027			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.045135		.0484	mg/L	107	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	.5015		.4893	mg/L	98	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.027	0.027			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	.5015		.4917	mg/L	98	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	.5015	.017	.5009	mg/L	96	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	.5015	.017	.5024	mg/L	97	75	125	0	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	1		.9672	mg/L	97	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.027	0.027			
L57217-02SDL	SDL	04/02/20 10:07			.214	.233	mg/L				9	10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	1		.9622	mg/L	96	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.027	0.027			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate (MWMT)

D516-07 - Turbidimetric

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494485													
WG494485ICB	ICB	03/27/20 11:12				U	mg/L		-3	3			
WG494485ICV	ICV	03/27/20 11:12	WI200320-1	20		19.8	mg/L	99	90	110			
WG494485CCV1	CCV	03/27/20 11:40	WI200320-2	25		25	mg/L	100	90	110			
WG494485CCB1	CCB	03/27/20 11:40				U	mg/L		-3	3			
WG494485LFB	LFB	03/27/20 11:40	WI190801-3	10.01		9.3	mg/L	93	90	110			
WG493240PBS	PBS	03/27/20 11:40				U	mg/L		-3	3			
WG494485CCV2	CCV	03/27/20 11:42	WI200320-2	25		25.1	mg/L	100	90	110			
WG494485CCB2	CCB	03/27/20 11:42				U	mg/L		-3	3			
WG493948PBS	PBS	03/27/20 11:42				U	mg/L		-3	3			
WG494485CCV3	CCV	03/27/20 11:43	WI200320-2	25		24.7	mg/L	99	90	110			
WG494485CCB3	CCB	03/27/20 11:43				U	mg/L		-3	3			
WG494485CCV4	CCV	03/27/20 11:44	WI200320-2	25		24.6	mg/L	98	90	110			
WG494485CCB4	CCB	03/27/20 11:44				U	mg/L		-3	3			
WG494485CCV5	CCV	03/27/20 11:49	WI200320-2	25		24.6	mg/L	98	90	110			
WG494485CCB5	CCB	03/27/20 11:49				U	mg/L		-3	3			
L57215-08AS	AS	03/27/20 11:50	SO4TURB5X	10	31.7	39.9	mg/L	82	90	110			M2
WG494485CCV6	CCV	03/27/20 11:51	WI200320-2	25		24.9	mg/L	100	90	110			
WG494485CCB6	CCB	03/27/20 11:51				2	mg/L		-3	3			
WG494485CCV7	CCV	03/27/20 12:22	WI200320-2	25		24.5	mg/L	98	90	110			
WG494485CCB7	CCB	03/27/20 12:22				U	mg/L		-3	3			
WG494485CCV8	CCV	03/27/20 12:23	WI200320-2	25		24.9	mg/L	100	90	110			
WG494485CCB8	CCB	03/27/20 12:23				U	mg/L		-3	3			
WG494485CCV9	CCV	03/27/20 12:29	WI200320-2	25		24.6	mg/L	98	90	110			
WG494485CCB9	CCB	03/27/20 12:29				U	mg/L		-3	3			
WG494485CCV10	CCV	03/27/20 12:30	WI200320-2	25		24.8	mg/L	99	90	110			
WG494485CCB10	CCB	03/27/20 12:30				U	mg/L		-3	3			
WG494485CCV11	CCV	03/27/20 14:47	WI200320-2	25		24.5	mg/L	98	90	110			
WG494485CCB11	CCB	03/27/20 14:47				U	mg/L		-3	3			
L57215-08DUP	DUP	03/27/20 14:47			31.7	35.8	mg/L				12	20	
L57215-08AS	AS	03/27/20 14:47	SO4TURB5X	10	31.7	39.9	mg/L	82	90	110			
WG494485CCV12	CCV	03/27/20 14:48	WI200320-2	25		24.8	mg/L	99	90	110			
WG494485CCB12	CCB	03/27/20 14:48				U	mg/L		-3	3			
WG494723													
WG494723ICB	ICB	04/01/20 9:34				U	mg/L		-3	3			
WG494723ICV	ICV	04/01/20 9:34	WI200320-1	20		19.2	mg/L	96	90	110			
WG494723CCV1	CCV	04/01/20 9:43	WI200320-2	25		24.9	mg/L	100	90	110			
WG494723CCB1	CCB	04/01/20 9:43				U	mg/L		-3	3			
WG494723LFB	LFB	04/01/20 9:43	WI190801-3	10.01		9.7	mg/L	97	90	110			
WG493354PBS	PBS	04/01/20 9:43				U	mg/L		-3	3			
WG493997PBS	PBS	04/01/20 9:43				U	mg/L		-3	3			
L57215-13AS	AS	04/01/20 9:43	WI190801-3	10.01	20	30.2	mg/L	102	90	110			
WG494723CCV2	CCV	04/01/20 9:45	WI200320-2	25		24.6	mg/L	98	90	110			
WG494723CCB2	CCB	04/01/20 9:45				U	mg/L		-3	3			
L57215-13DUP	DUP	04/01/20 9:45			20	20	mg/L				0	20	
WG494723CCV3	CCV	04/01/20 9:46	WI200320-2	25		24.7	mg/L	99	90	110			
WG494723CCB3	CCB	04/01/20 9:46				U	mg/L		-3	3			
WG494723CCV4	CCV	04/01/20 10:08	WI200320-2	25		24.7	mg/L	99	90	110			
WG494723CCB4	CCB	04/01/20 10:08				U	mg/L		-3	3			
WG494723CCV5	CCV	04/01/20 10:09	WI200320-2	25		24.5	mg/L	98	90	110			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494723CCB5	CCB	04/01/20 10:09			U	mg/L	-3	3		
WG494726										
WG494726ICB	ICB	04/01/20 9:34			U	mg/L	-3	3		
WG494726ICV	ICV	04/01/20 9:34	WI200320-1	20	19.2	mg/L	96	90	110	
WG494726CCV1	CCV	04/01/20 10:20	WI200320-2	25	25	mg/L	100	90	110	
WG494726CCB1	CCB	04/01/20 10:20			U	mg/L	-3	3		
WG494726LFB	LFB	04/01/20 10:20	WI190801-3	10.01	9.6	mg/L	96	90	110	
WG494001PBS	PBS	04/01/20 10:20			U	mg/L	-3	3		
WG494075PBS	PBS	04/01/20 10:20			U	mg/L	-3	3		M3
WG494726CCV2	CCV	04/01/20 10:21	WI200320-2	25	24.6	mg/L	98	90	110	
WG494726CCB2	CCB	04/01/20 10:21			U	mg/L	-3	3		
WG494726CCV3	CCV	04/01/20 10:52	WI200320-2	25	24.6	mg/L	98	90	110	
WG494726CCB3	CCB	04/01/20 10:52			U	mg/L	-3	3		
L57922-01DUP	DUP	04/01/20 10:52			381	393	mg/L		3	20
L57922-02AS	AS	04/01/20 10:52	SO4TURB40X	9.99	554	554	mg/L	0	90	110
WG494726CCV4	CCV	04/01/20 10:53	WI200320-2	25	24.5	mg/L	98	90	110	M3
WG494726CCB4	CCB	04/01/20 10:53			U	mg/L	-3	3		

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ACZ Project ID: **L57215**

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Thallium (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.05059	mg/L	101	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0003	0.0003			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.000501		.00049	mg/L	98	70	130			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02004		.02118	mg/L	106	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0003	0.0003			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.0501		.04814	mg/L	96	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.0501	U	.04897	mg/L	98	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.0501	U	.04886	mg/L	98	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1002		.10069	mg/L	100	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0003	0.0003			
L57215-13DUP	DUP	03/31/20 13:05			U	U	mg/L				0	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1002		.09982	mg/L	100	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0003	0.0003			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.05133	mg/L	103	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0003	0.0003			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.000501		.00046	mg/L	92	70	130			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02004		.01852	mg/L	92	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0003	0.0003			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1002		.102	mg/L	102	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0003	0.0003			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.0501	U	.04997	mg/L	100	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.0501	U	.05064	mg/L	101	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			U	U	mg/L				0	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.0501		.04948	mg/L	99	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1002		.1023	mg/L	102	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0003	0.0003			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.05504	mg/L	110	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0003	0.0003			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.000501		.00053	mg/L	106	70	130			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02004		.02129	mg/L	106	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.0501		.05227	mg/L	104	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.0501	U	.05068	mg/L	101	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.0501	U	.05209	mg/L	104	75	125	3	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1002		.10066	mg/L	100	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0003	0.0003			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1002		.10097	mg/L	101	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0003	0.0003			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.0501		.05237	mg/L	105	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1002		.10141	mg/L	101	90	110			
WG494824CCB3	CCB	04/02/20 18:22				U	mg/L		-0.0003	0.0003			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Thorium (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.0498	mg/L	100	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.003	0.003			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.005		.0043	mg/L	86	70	130			
WG494662ICSA	ICSA	03/31/20 12:36				U	mg/L		-0.005	0.005			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.05		.0545	mg/L	109	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.003	0.003			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05		.0484	mg/L	97	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05	U	.05	mg/L	100	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05	U	.0512	mg/L	102	75	125	2	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1		.1011	mg/L	101	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.003	0.003			
L57215-13DUP	DUP	03/31/20 13:05			U	U	mg/L				0	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1		.0996	mg/L	100	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.003	0.003			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.0493	mg/L	99	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.003	0.003			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.005		.0041	mg/L	82	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.005	0.005			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.05		.0521	mg/L	104	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.003	0.003			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1		.1008	mg/L	101	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.003	0.003			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05	U	.0509	mg/L	102	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05	U	.0514	mg/L	103	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			U	U	mg/L				0	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05		.0494	mg/L	99	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1		.1006	mg/L	101	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.003	0.003			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.0531	mg/L	106	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.003	0.003			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.005		.0046	mg/L	92	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.005	0.005			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.05		.0535	mg/L	107	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.003	0.003			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05		.0508	mg/L	102	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05	U	.0515	mg/L	103	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05	U	.0514	mg/L	103	75	125	0	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1		.0998	mg/L	100	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.003	0.003			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1		.1026	mg/L	103	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.003	0.003			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.003	0.003			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05		.0516	mg/L	103	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1		.1018	mg/L	102	90	110			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 U mg/L -0.003 0.003

Tin (MWMT) M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	2		2.055	mg/L	103	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.12	0.12			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.2004		.211	mg/L	105	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	2.505		2.447	mg/L	98	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.12	0.12			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	1.002		1.019	mg/L	102	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	1		1.045	mg/L	105	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.12	0.12			
L57215-08SDL	SDL	03/30/20 23:35			U	U	mg/L					10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	1.002	U	1.048	mg/L	105	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	1.002	U	1.033	mg/L	103	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			U	U	mg/L				0	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	1		1.051	mg/L	105	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.12	0.12			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	2		2.086	mg/L	104	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.12	0.12			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.2004		.191	mg/L	95	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	2.505		2.509	mg/L	100	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.12	0.12			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	1.002		1.012	mg/L	101	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	1.002	U	1.011	mg/L	101	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	1.002	U	1.021	mg/L	102	75	125	1	20	
L57215-13DUP	DUP	04/01/20 15:15			U	U	mg/L				0	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	1		1.067	mg/L	107	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.12	0.12			
L57215-14SDL	SDL	04/01/20 15:31			U	U	mg/L					10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	1		1.002	mg/L	100	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.12	0.12			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	2		2.036	mg/L	102	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.12	0.12			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.2004		.232	mg/L	116	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	2.505		2.508	mg/L	100	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.12	0.12			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	1.002		1.06	mg/L	106	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	1.002	U	.999	mg/L	100	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	1.002	U	1.044	mg/L	104	75	125	4	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	1		1.04	mg/L	104	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.12	0.12			
L57217-02SDL	SDL	04/02/20 10:07			U	U	mg/L					10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	1		1.034	mg/L	103	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.12	0.12			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Titanium (MWMT)

M6010D ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494597													
WG494597ICV	ICV	03/30/20 22:20	II200318-6	2		1.839	mg/L	92	90	110			
WG494597ICB	ICB	03/30/20 22:24				U	mg/L		-0.015	0.015			
WG494597PQV	PQV	03/30/20 22:28	II200327-2	.024925		.0246	mg/L	99	70	130			
WG494597ICSAB	ICSAB	03/30/20 22:32	II200302-6	.4985		.4821	mg/L	97	80	120			
WG493948PBS	PBS	03/30/20 22:48				U	mg/L		-0.015	0.015			
WG493948LFB1	LFB	03/30/20 22:52	II200302-4	.997		.9303	mg/L	93	80	120			
WG494597CCV1	CCV	03/30/20 23:27	II200318-5	1		.9255	mg/L	93	90	110			
WG494597CCB1	CCB	03/30/20 23:31				U	mg/L		-0.015	0.015			
L57215-08SDL	SDL	03/30/20 23:35			U	U	mg/L					10	
L57215-08MS2	MS	03/30/20 23:39	II200302-4	.997	U	.9463	mg/L	95	75	125			
L57215-08MSD2	MSD	03/30/20 23:43	II200302-4	.997	U	.9364	mg/L	94	75	125	1	20	
L57215-08DUP	DUP	03/30/20 23:46			U	U	mg/L				0	20	RA
WG494597CCV2	CCV	03/30/20 23:50	II200318-5	1		.9303	mg/L	93	90	110			
WG494597CCB2	CCB	03/30/20 23:54				U	mg/L		-0.015	0.015			
WG494738													
WG494738ICV	ICV	04/01/20 14:12	II200318-6	2		1.88	mg/L	94	90	110			
WG494738ICB	ICB	04/01/20 14:15				U	mg/L		-0.015	0.015			
WG494738PQV	PQV	04/01/20 14:19	II200401-5	.024925		.0219	mg/L	88	70	130			
WG494738ICSAB	ICSAB	04/01/20 14:23	II200302-6	.4985		.4937	mg/L	99	80	120			
WG493997PBS	PBS	04/01/20 14:40				U	mg/L		-0.015	0.015			
WG493997LFB1	LFB	04/01/20 14:44	II200302-4	.997		.9213	mg/L	92	80	120			
L57215-13MS2	MS	04/01/20 15:07	II200302-4	.997	U	.9397	mg/L	94	75	125			
L57215-13MSD2	MSD	04/01/20 15:11	II200302-4	.997	U	.9431	mg/L	95	75	125	0	20	
L57215-13DUP	DUP	04/01/20 15:15			U	U	mg/L				0	20	RA
WG494738CCV1	CCV	04/01/20 15:19	II200318-5	1		.9711	mg/L	97	90	110			
WG494738CCB1	CCB	04/01/20 15:23				U	mg/L		-0.015	0.015			
L57215-14SDL	SDL	04/01/20 15:31			U	U	mg/L					10	
WG494738CCV2	CCV	04/01/20 15:43	II200318-5	1		.9133	mg/L	91	90	110			
WG494738CCB2	CCB	04/01/20 15:47				U	mg/L		-0.015	0.015			
WG494800													
WG494800ICV	ICV	04/02/20 8:52	II200318-6	2		1.822	mg/L	91	90	110			
WG494800ICB	ICB	04/02/20 8:56				U	mg/L		-0.015	0.015			
WG494800PQV	PQV	04/02/20 9:00	II200401-5	.024925		.0265	mg/L	106	70	130			
WG494800ICSAB	ICSAB	04/02/20 9:04	II200302-6	.4985		.4812	mg/L	97	80	120			
WG494001PBS	PBS	04/02/20 9:20				U	mg/L		-0.015	0.015			
WG494001LFB1	LFB	04/02/20 9:24	II200302-4	.997		.9315	mg/L	93	80	120			
L57215-17MS2	MS	04/02/20 9:32	II200302-4	.997	U	.9174	mg/L	92	75	125			
L57215-17MSD2	MSD	04/02/20 9:36	II200302-4	.997	U	.9288	mg/L	93	75	125	1	20	
WG494800CCV1	CCV	04/02/20 10:00	II200318-5	1		.9261	mg/L	93	90	110			
WG494800CCB1	CCB	04/02/20 10:03				U	mg/L		-0.015	0.015			
L57217-02SDL	SDL	04/02/20 10:07			U	U	mg/L					10	
WG494800CCV2	CCV	04/02/20 10:23	II200318-5	1		.921	mg/L	92	90	110			
WG494800CCB2	CCB	04/02/20 10:27				U	mg/L		-0.015	0.015			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Uranium (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.05028	mg/L	101	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0003	0.0003			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.0005		.00049	mg/L	98	70	130			
WG494662ICSA	ICSA	03/31/20 12:36				U	mg/L		-0.0005	0.0005			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02		.02245	mg/L	112	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0003	0.0003			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05		.04791	mg/L	96	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.0009	.001	mg/L				11	10	ZG
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05	.0009	.05104	mg/L	100	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05	.0009	.05095	mg/L	100	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1		.10036	mg/L	100	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0003	0.0003			
L57215-13DUP	DUP	03/31/20 13:05			.0009	.00187	mg/L				70	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1		.10041	mg/L	100	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0003	0.0003			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.05037	mg/L	101	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0003	0.0003			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.0005		.00044	mg/L	88	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.0005	0.0005			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02		.01883	mg/L	94	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0003	0.0003			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1		.102	mg/L	102	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0003	0.0003			
L57215-08SDL	SDL	03/31/20 14:06			.0024	.0022	mg/L				8	10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05	.0024	.05339	mg/L	102	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05	.0024	.05417	mg/L	104	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			.0024	.00176	mg/L				31	20	RD
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05		.04964	mg/L	99	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1		.1023	mg/L	102	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0003	0.0003			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.0537	mg/L	107	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0003	0.0003			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.0005		.00052	mg/L	104	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.0005	0.0005			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02		.02082	mg/L	104	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05		.05067	mg/L	101	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05	.0002	.05032	mg/L	100	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05	.0002	.05159	mg/L	103	75	125	2	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1		.10025	mg/L	100	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0003	0.0003			
L57217-02SDL	SDL	04/02/20 18:04			.0012	.0012	mg/L				0	10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1		.10392	mg/L	104	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.0003	0.0003			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0003	0.0003			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05		.05226	mg/L	105	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1		.10272	mg/L	103	90	110			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22

U mg/L -0.0003 0.0003

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Vanadium (MWMT)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.04942	mg/L	99	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.0015	0.0015			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.002		.00191	mg/L	96	70	130			
WG494662ICSA	ICSA	03/31/20 12:36				U	mg/L		-0.002	0.002			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02		.02116	mg/L	106	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.0015	0.0015			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.05		.0499	mg/L	100	80	120			
L57215-13SDL	SDL	03/31/20 12:56			.0265	.0307	mg/L				16	10	ZH
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.05	.0265	.07943	mg/L	106	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.05	.0265	.07929	mg/L	106	75	125	0	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.1		.10089	mg/L	101	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.0015	0.0015			
L57215-13DUP	DUP	03/31/20 13:05			.0265	.04736	mg/L				56	20	RD
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.1		.09867	mg/L	99	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.0015	0.0015			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.0457	mg/L	91	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.0015	0.0015			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.002		.00181	mg/L	91	70	130			
WG494534ICSA	ICSA	03/31/20 13:23				U	mg/L		-0.002	0.002			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02		.01746	mg/L	87	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.0015	0.0015			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.1		.09468	mg/L	95	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.0015	0.0015			
L57215-08SDL	SDL	03/31/20 14:06			.2316	.2111	mg/L				9	10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.05	.2316	.2725	mg/L	82	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.05	.2316	.27	mg/L	77	75	125	1	20	
L57215-08DUP	DUP	03/31/20 14:15			.2316	.222	mg/L				4	20	
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.05		.04592	mg/L	92	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.1		.09597	mg/L	96	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.0015	0.0015			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.05	mg/L	100	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.0015	0.0015			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.002		.00171	mg/L	86	70	130			
WG494824ICSA	ICSA	04/02/20 17:39				U	mg/L		-0.002	0.002			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02		.01899	mg/L	95	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.0015	0.0015			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.05		.04911	mg/L	98	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.05	.0129	.06185	mg/L	98	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.05	.0129	.06276	mg/L	100	75	125	1	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.1		.10178	mg/L	102	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.0015	0.0015			
L57217-02SDL	SDL	04/02/20 18:04			.1027	.09995	mg/L				3	10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.1		.10246	mg/L	102	90	110			
WG494824CCB2	CCB	04/02/20 18:13				.00062	mg/L		-0.0015	0.0015			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.0015	0.0015			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.05		.05051	mg/L	101	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.1		.10051	mg/L	101	90	110			

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ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG494824CCB3 CCB 04/02/20 18:22 .0006 mg/L -0.0015 0.0015

Zinc (MWMt) M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG494662													
WG494662ICV	ICV	03/31/20 12:31	MS200331-1	.05		.0508	mg/L	102	90	110			
WG494662ICB	ICB	03/31/20 12:33				U	mg/L		-0.018	0.018			
WG494662PQV	PQV	03/31/20 12:35	MS200327-4	.0150225		.0148	mg/L	99	70	130			
WG494662ICSAB	ICSAB	03/31/20 12:38	MS200203-2	.02003		.0238	mg/L	119	80	120			
WG493997PBS	PBS	03/31/20 12:44				U	mg/L		-0.018	0.018			
WG493997LFB2	LFB	03/31/20 12:45	MS200120-3	.050075		.0537	mg/L	107	80	120			
L57215-13SDL	SDL	03/31/20 12:56			U	U	mg/L					10	
L57215-13MS1	MS	03/31/20 12:58	MS200120-3	.050075	U	.054	mg/L	108	75	125			
L57215-13MSD1	MSD	03/31/20 13:00	MS200120-3	.050075	U	.0536	mg/L	107	75	125	1	20	
WG494662CCV1	CCV	03/31/20 13:01	MS200228-5	.50075		.5106	mg/L	102	90	110			
WG494662CCB1	CCB	03/31/20 13:03				U	mg/L		-0.018	0.018			
L57215-13DUP	DUP	03/31/20 13:05			U	U	mg/L				0	20	RA
WG494662CCV2	CCV	03/31/20 13:12	MS200228-5	.50075		.5099	mg/L	102	90	110			
WG494662CCB2	CCB	03/31/20 13:14				U	mg/L		-0.018	0.018			
WG494534													
WG494534ICV	ICV	03/31/20 13:13	MS200210-2	.05		.0454	mg/L	91	90	110			
WG494534ICB	ICB	03/31/20 13:16				U	mg/L		-0.018	0.018			
WG494534PQV	PQV	03/31/20 13:19	MS200327-4	.0150225		.014	mg/L	93	70	130			
WG494534ICSAB	ICSAB	03/31/20 13:26	MS200203-2	.02003		.0182	mg/L	91	80	120			
WG493948PBS	PBS	03/31/20 13:32				U	mg/L		-0.018	0.018			
WG494534CCV1	CCV	03/31/20 13:54	MS200228-5	.50075		.5116	mg/L	102	90	110			
WG494534CCB1	CCB	03/31/20 13:57				U	mg/L		-0.018	0.018			
L57215-08SDL	SDL	03/31/20 14:06			U	U	mg/L					10	
L57215-08MS1	MS	03/31/20 14:09	MS200120-3	.050075	U	.0464	mg/L	93	75	125			
L57215-08MSD1	MSD	03/31/20 14:12	MS200120-3	.050075	U	.0466	mg/L	93	75	125	0	20	
L57215-08DUP	DUP	03/31/20 14:15			U	U	mg/L				0	20	RA
WG493948LFB2	LFB	03/31/20 14:19	MS200120-3	.050075		.0465	mg/L	93	80	120			
WG494534CCV2	CCV	03/31/20 14:22	MS200228-5	.50075		.5074	mg/L	101	90	110			
WG494534CCB2	CCB	03/31/20 14:24				U	mg/L		-0.018	0.018			
WG494824													
WG494824ICV	ICV	04/02/20 17:33	MS200331-1	.05		.0517	mg/L	103	90	110			
WG494824ICB	ICB	04/02/20 17:35				U	mg/L		-0.018	0.018			
WG494824PQV	PQV	04/02/20 17:37	MS200327-4	.0150225		.0152	mg/L	101	70	130			
WG494824ICSAB	ICSAB	04/02/20 17:40	MS200203-2	.02003		.0205	mg/L	102	80	120			
WG494001PBS	PBS	04/02/20 17:44				U	mg/L		-0.018	0.018			
WG494001LFB2	LFB	04/02/20 17:46	MS200120-3	.050075		.0522	mg/L	104	80	120			
L57215-17MS1	MS	04/02/20 17:50	MS200120-3	.050075	U	.0513	mg/L	102	75	125			
L57215-17MSD1	MSD	04/02/20 17:52	MS200120-3	.050075	U	.0521	mg/L	104	75	125	2	20	
WG494824CCV1	CCV	04/02/20 17:57	MS200228-5	.50075		.5007	mg/L	100	90	110			
WG494824CCB1	CCB	04/02/20 17:59				U	mg/L		-0.018	0.018			
L57217-02SDL	SDL	04/02/20 18:04			U	U	mg/L					10	
WG494824CCV2	CCV	04/02/20 18:12	MS200228-5	.50075		.4986	mg/L	100	90	110			
WG494824CCB2	CCB	04/02/20 18:13				U	mg/L		-0.018	0.018			
WG494001PBS	PBS	04/02/20 18:15				U	mg/L		-0.018	0.018			
WG494001LFB2	LFB	04/02/20 18:17	MS200120-3	.050075		.0521	mg/L	104	80	120			
WG494824CCV3	CCV	04/02/20 18:21	MS200228-5	.50075		.5004	mg/L	100	90	110			
WG494824CCB3	CCB	04/02/20 18:22				U	mg/L		-0.018	0.018			

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ACZ Project ID: **L57215**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-01	WG494597	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Calcium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494501	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494476	Chloride (MWMT)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494534	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494511	Cyanide, WAD (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
			SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494501	Hydroxide as CaCO ₃	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494597	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494439	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

REPAD.15.06.05.01

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ACZ Project ID: **L57215**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494534	Molybdenum (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494452	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494529	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494716	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494534	Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494485	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494534	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Uranium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ Project ID: **L57215**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-02	WG494597	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Calcium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494501	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494476	Chloride (MWMT)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494534	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494511	Cyanide, WAD (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
			SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494501	Hydroxide as CaCO ₃	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494597	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494439	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494534	Molybdenum (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494452	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494529	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494716	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494534	Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494485	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494534	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Uranium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-03	WG494597	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Calcium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494501	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494476	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494534	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494511	Cyanide, WAD (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
			SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494501	Hydroxide as CaCO ₃	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494597	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494439	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494534	Molybdenum (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494452	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494529	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494716	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494534	Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494485	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494534	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Uranium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-04	WG494597	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Calcium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494501	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494476	Chloride (MWMT)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494534	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494511	Cyanide, WAD (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
			SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494501	Hydroxide as CaCO ₃	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494597	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494439	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494534	Molybdenum (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494452	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494529	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494716	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494534	Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494485	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494534	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Uranium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-05	WG494597	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Calcium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494501	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494476	Chloride (MWMT)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494534	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494511	Cyanide, WAD (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
			SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494501	Hydroxide as CaCO ₃	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494597	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494439	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494534	Molybdenum (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494452	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494529	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494716	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494534	Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494485	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494534	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Uranium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-06	WG494597	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Calcium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494501	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494476	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494534	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494511	Cyanide, WAD (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
			SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494501	Hydroxide as CaCO ₃	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494597	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494439	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494534	Molybdenum (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494452	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494529	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494716	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494534	Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494485	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494534	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Uranium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-07	WG494597	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Calcium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494501	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494476	Chloride (MWMT)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494534	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494511	Cyanide, WAD (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
			SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494501	Hydroxide as CaCO ₃	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494597	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494439	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494534	Molybdenum (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494452	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494529	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494716	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494534	Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494485	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494534	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Uranium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-08	WG494597	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Calcium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494501	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494476	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494534	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494511	Cyanide, WAD (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
			SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494501	Hydroxide as CaCO ₃	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
	WG494597	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494534	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494439	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494534	Molybdenum (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494452	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494529	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494716	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494534	Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494485	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494534	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494597	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494501	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494534	Uranium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-09	WG494738	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Arsenic (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
	WG494738	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494662	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494616	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494738	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494613	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494707	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495090	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494570	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Sodium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			SM2320B - Titration	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494662	Uranium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Vanadium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-10	WG494738	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Arsenic (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
	WG494738	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494662	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494616	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494738	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494613	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494707	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495090	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494570	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Sodium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			SM2320B - Titration	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494662	Uranium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Vanadium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-11	WG494738	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Arsenic (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
	WG494738	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494662	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494616	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494738	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494613	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494707	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495090	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494570	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Sodium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			SM2320B - Titration	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494662	Uranium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Vanadium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-12	WG494738	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Arsenic (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
	WG494738	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494662	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494616	Chloride (MWMT)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494738	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494613	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494707	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495090	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494570	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Sodium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			SM2320B - Titration	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494662	Uranium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Vanadium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ Project ID: **L57215**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-13	WG494738	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Arsenic (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
	WG494738	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494662	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494616	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494738	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494613	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494707	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495090	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494570	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Sodium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			SM2320B - Titration	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494662	Uranium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Vanadium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-14	WG494738	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Arsenic (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
	WG494738	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494662	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494616	Chloride (MWMT)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494738	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494613	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494707	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495090	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494570	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Sodium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			SM2320B - Titration	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494662	Uranium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Vanadium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-15	WG494738	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Arsenic (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
	WG494738	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494662	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494616	Chloride (MWMT)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494738	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494613	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494707	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495090	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494570	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Sodium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			SM2320B - Titration	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494662	Uranium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Vanadium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-16	WG494738	Aluminum (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Antimony (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Arsenic (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
	WG494738	Barium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Beryllium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494662	Cadmium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494616	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Chromium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Cobalt (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Copper (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494561	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494738	Iron (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Lead (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Lithium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Magnesium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Manganese (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494613	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
			M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494662	Nickel (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494707	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495090	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Phosphorus (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Potassium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494570	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540C	Z3	Sample volume yielded a residue less than 2.5 mg
	WG494662	Selenium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Silver (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Sodium (MWMT)	M6010D ICP	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
		Strontium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494662	Thallium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Thorium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494738	Tin (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Titanium (MWMT)	M6010D ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494561	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
	WG494662	Uranium (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
		Vanadium (MWMT)	M6020B ICP-MS	RD	For a solid matrix, the duplicate RPD (spike or matrix) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
			M6020B ICP-MS	ZH	Serial Dilution exceeded the acceptance criteria. Matrix interference [physical or chemical] is suspected.
		Zinc (MWMT)	M6020B ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-17	WG494741	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494800	Boron (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494741	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494853	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500Cl-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494741	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494800	Magnesium (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494701	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
	WG494708	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495092	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494800	Potassium (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494730	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	Z3	Sample volume yielded a residue less than 2.5 mg
	WG494824	Selenium (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494726	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			D516-07 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG494741	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-18	WG494741	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494800	Boron (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494741	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494853	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500Cl-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494741	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494800	Magnesium (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494701	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
	WG494708	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495092	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494800	Potassium (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494730	Residue, Filterable (TDS) @180C (MWMT)	SM2540C	Z3	Sample volume yielded a residue less than 2.5 mg
	WG494824	Selenium (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG494741	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-19	WG494741	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494800	Boron (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494741	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494853	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500Cl-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494741	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494800	Magnesium (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494701	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
	WG494708	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495092	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494800	Potassium (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494824	Selenium (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494741	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-20	WG494741	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494800	Boron (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494741	Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494853	Chloride (MWMT)	SM4500Cl-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500Cl-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494945	Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation	H1	Sample prep or analysis performed past holding time. See case narrative.
			SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494741	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG494800	Magnesium (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494701	Mercury (MWMT)	M7470A CVAA	H1	Sample prep or analysis performed past holding time. See case narrative.
			M7470A CVAA	Q6	Sample was received above recommended temperature.
	WG494708	Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
		Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction	H1	Sample prep or analysis performed past holding time. See case narrative.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG495092	Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M351.2 - Block Digestor	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M351.2 - Block Digestor	Q6	Sample was received above recommended temperature.
			M351.2 - Block Digestor	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG494800	Potassium (MWMT)	M6010D ICP	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494824	Selenium (MWMT)	M6020B ICP-MS	ZG	The ICP or ICP-MS Serial Dilution was not used for data validation because the sample concentration was less than 50 times the MDL.
	WG494723	Sulfate (MWMT)	D516-07 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
	WG494741	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data

REPAD.15.06.05.01

Wood - E&I Solutions, Inc.ACZ Project ID: **L57215**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
					validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_145-155

Locator:

ACZ Sample ID: **L57215-01**

Date Sampled: 01/22/20 10:28

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:02		0.63	0.35	0.64	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	03/31/20 13:13		-1	2.5	6.9	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_175-182

Locator:

ACZ Sample ID: **L57215-02**

Date Sampled: 01/23/20 14:00

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:04		0.65	0.47	0.87	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	03/31/20 13:13		-1.1	2.7	6.7	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_187-192

Locator:

ACZ Sample ID: **L57215-03**

Date Sampled: 01/23/20 14:40

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:05		0.53	0.4	0.34	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	03/31/20 13:13		0.29	2.7	6.9	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB206_197-202

Locator:

ACZ Sample ID: **L57215-04**

Date Sampled: 01/27/20 15:02

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:07		1.8	0.61	1.1	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	03/31/20 13:13		0.37	3	7.1	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_0.5-3

Locator:

ACZ Sample ID: **L57215-05**

Date Sampled: 01/22/20 9:18

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:08		0.62	0.49	0.75	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	03/31/20 13:13		2.8	3	7	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_6-15

Locator:

ACZ Sample ID: **L57215-06**

Date Sampled: 01/22/20 9:38

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:10		0.83	0.53	0.39	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	03/31/20 13:13		0.14	2.7	6.7	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_25-35

Locator:

ACZ Sample ID: **L57215-07**

Date Sampled: 01/22/20 10:02

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:11		0.5	0.45	0.51	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	03/31/20 13:13		-1.1	2.8	6.7	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_65-75

Locator:

ACZ Sample ID: **L57215-08**

Date Sampled: 01/22/20 11:03

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:12		0.96	0.44	0.48	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	03/31/20 13:13		2.9	2.5	6.2	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_105-115

Locator:

ACZ Sample ID: **L57215-09**

Date Sampled: 01/22/20 13:37

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:02		-0.44	0.38	0.36	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/03/20 14:25		0.83	2.1	6.1	pCi/L	*	amk

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_125-135

Locator:

ACZ Sample ID: **L57215-10**

Date Sampled: 01/22/20 14:58

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:04		0.67	0.32	0.41	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/03/20 14:25		-0.27	2.6	6.5	pCi/L	*	amk

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_140-145

Locator:

ACZ Sample ID: **L57215-11**

Date Sampled: 01/23/20 9:37

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:05		0.6	0.42	0.5	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/03/20 14:25		-1	2.3	5.4	pCi/L	*	amk

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB207_150-155

Locator:

ACZ Sample ID: **L57215-12**

Date Sampled: 01/23/20 9:40

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:07		0.71	0.39	0.41	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/03/20 14:25		-1.4	2.3	5.6	pCi/L	*	amk

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB234_0.5-3

Locator:

ACZ Sample ID: **L57215-13**

Date Sampled: 01/23/20 11:38

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:08		0.4	0.41	0.74	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/03/20 14:25		1.9	2.2	5.4	pCi/L	*	amk

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB234_6-15

Locator:

ACZ Sample ID: **L57215-14**

Date Sampled: 01/23/20 12:00

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:10		0.68	0.29	0.25	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/03/20 14:25		-0.65	2.4	5.7	pCi/L	*	amk

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB223_0.5-3

Locator:

ACZ Sample ID: **L57215-15**

Date Sampled: 01/23/20 13:35

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:11		0.2	0.45	0.86	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/03/20 14:25		0.53	2.4	5.7	pCi/L	*	amk

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB223_6-15

Locator:

ACZ Sample ID: **L57215-16**

Date Sampled: 01/23/20 13:46

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/07/20 0:12		0.49	0.39	0.66	pCi/L	*	djc

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/03/20 14:25		-0.94	2.5	5.6	pCi/L	*	amk

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228_0.5-3

Locator:

ACZ Sample ID: **L57215-17**

Date Sampled: 01/23/20 14:28

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/09/20 0:02		7.3	0.74	0.33	pCi/L	*	jljg

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/05/20 14:47		1.5	2.7	6.7	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228-FD_0.5-3

Locator:

ACZ Sample ID: **L57215-18**

Date Sampled: 01/23/20 14:30

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/09/20 0:04		0.21	0.4	0.38	pCi/L	*	jlg

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/05/20 14:47		-0.71	2.7	6.8	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB228_6-15

Locator:

ACZ Sample ID: **L57215-19**

Date Sampled: 01/23/20 14:44

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/09/20 0:05		0.93	0.39	0.45	pCi/L	*	jlg

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/05/20 14:48		-0.13	2.6	6.1	pCi/L	*	isn

Wood - E&I Solutions, Inc.

Project ID:

Sample ID: WRSB227_0.5-3

Locator:

ACZ Sample ID: **L57215-20**

Date Sampled: 01/24/20 8:40

Date Received: 02/03/20

Sample Matrix: Soil

Radium 226 (MWMT)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (MWMT)	04/09/20 0:07		0.94	0.31	0.41	pCi/L	*	jlg

Radium 228 (MWMT)

Prep Method:

M9320

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228 (MWMT)	04/05/20 14:48		2	2.6	6.1	pCi/L	*	isn

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://aczk.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 226 (MWMT)

M903.1

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG494588																
WG493948PBW	PBW	04/07/20						.12	0.32	0.8			1.6			
WG493948LCSW	LCSW	04/07/20	PCN57864	66.67				65	2	0.43	98	43	148			
L57215-07DUP	DUP-RPD	04/07/20			0.5	0.45	0.51	.52	0.35	0.57				4	20	
L57215-08MS	MS	04/07/20	PCN57864	66.67	0.96	0.44	0.48	54	2	0.49	80	43	148			
WG494591																
WG493997PBW	PBW	04/07/20						.78	0.33	0.64			1.28			
WG493997LCSW	LCSW	04/07/20	PCN57864	66.67				56	2	0.67	84	43	148			
L57215-13DUP	DUP-RER	04/07/20			0.4	0.41	0.74	.77	0.33	0.33				0.7	2	
L57215-13DUP	DUP-RPD	04/07/20			0.4	0.41	0.74	.77	0.33	0.33				63	20	RG
L57215-14MS	MS	04/07/20	PCN57864	66.67	0.68	0.29	0.25	54	1.7	0.49	80	43	148			
WG494832																
WG494001PBW	PBW	04/09/20						.18	0.31	0.48			0.96			
WG494001LCSW	LCSW	04/09/20	PCN57864	66.67				72	2.7	0.66	108	43	148			
L57215-20DUP	DUP-RPD	04/09/20			0.94	0.31	0.41	.57	0.54	0.66				49	20	RG
L57215-20DUP	DUP-RER	04/09/20			0.94	0.31	0.41	.57	0.54	0.66				0.59	2	
L57217-01MS	MS	04/09/20	PCN57864	66.67	0.63	0.32	0.11	63	2	0.37	94	43	148			

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 228 (MWMT)

M9320

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG494530																
WG493948PBW	PBW	03/31/20						1.2	2.6	6.6			13.2			
L57215-07MS	MS	03/31/20	PCN58076	28.76	-1.1	2.8	6.7	32	3.8	6	115	47	123			
WG493948LCSW	LCSW	03/31/20	PCN58076	28.76				31	3.8	6.4	108	47	123			
L57215-08DUP	DUP-RPD	03/31/20			2.9	2.5	6.2	1.1	2.5	5.7				90	20	RG
L57215-08DUP	DUP-RER	03/31/20			2.9	2.5	6.2	1.1	2.5	5.7				0.51	2	
WG494660																
L57215-13DUP	DUP-RER	04/03/20			1.9	2.2	5.4	.07	2.5	6.5				0.55	2	
L57215-14MS	MS	04/03/20	PCN58076	28.73	-0.65	2.4	5.7	29	3.3	5.4	103	47	123			
WG493997LCSW	LCSW	04/03/20	PCN58076	28.73				27	3.3	5.5	94	47	123			
WG493997PBW	PBW	04/03/20						-.13	2.4	5.8			11.6			
L57215-13DUP	DUP-RPD	04/03/20			1.9	2.2	5.4	.07	2.5	6.5				186	20	RG
WG494718																
WG494001LCSS	LCSS	04/05/20	PCN58076	28.71				30	3.7	6.2	105	47	123			
WG494001PBS	PBS	04/05/20						3.7	2.8	6.7			13.4			
L57217-01MS	MS	04/05/20	PCN58076	28.71	0.33	2.7	6.4	38	3.8	6	131	47	123			M1
L57215-20DUP	DUP-RER	04/05/20			2	2.6	6.1	.19	2.5	6.2				0.5	2	
L57215-20DUP	DUP-RPD	04/05/20			2	2.6	6.1	.19	2.5	6.2				165	20	RG

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-01	WG494530	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-02	WG494530	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-03	WG494530	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-04	WG494530	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-05	WG494530	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-06	WG494530	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-07	WG494530	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-08	WG494530	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-09	WG494591	Radium 226 (MWTM)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494660	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-10	WG494591	Radium 226 (MWTM)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494660	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-11	WG494591	Radium 226 (MWTM)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494660	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-12	WG494591	Radium 226 (MWTM)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494660	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-13	WG494591	Radium 226 (MWTM)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494660	Radium 228 (MWTM)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57215-14	WG494591	Radium 226 (MWMt)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494660	Radium 228 (MWMt)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-15	WG494591	Radium 226 (MWMt)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494660	Radium 228 (MWMt)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-16	WG494591	Radium 226 (MWMt)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494660	Radium 228 (MWMt)	M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-17	WG494832	Radium 226 (MWMt)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494718	Radium 228 (MWMt)	M9320	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-18	WG494832	Radium 226 (MWMt)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494718	Radium 228 (MWMt)	M9320	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-19	WG494832	Radium 226 (MWMt)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494718	Radium 228 (MWMt)	M9320	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L57215-20	WG494832	Radium 226 (MWMt)	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG494718	Radium 228 (MWMt)	M9320	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M9320	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Wood - E&I Solutions, Inc.

ACZ Project ID: **L57215**

Metals Analysis

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Molybdenum (MWMT)	M6020B ICP-MS
Selenium (MWMT)	M6020B ICP-MS
Thorium (MWMT)	M6020B ICP-MS
Titanium (MWMT)	M6010D ICP
Uranium (MWMT)	M6020B ICP-MS

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Thorium (MWMT)	M6020B ICP-MS
----------------	---------------

Radiochemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Radium 226 (MWMT)	M903.1
Radium 228 (MWMT)	M9320

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Radium 226 (MWMT)	M903.1
Radium 228 (MWMT)	M9320

Soil Preparation

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Dry Weight	ASTM E2242-13
Extraction pH	ASTM E2242-13
Extraction Temperature	ASTM E2242-13
Extraction Time	ASTM E2242-13
Leachate Volume	ASTM E2242-13
Particle Size over 5 cm	ASTM E2242-13
Post Filter pH	ASTM E2242-13
Pre Filter pH	ASTM E2242-13
Retained Moisture	ASTM E2242-13
Temperature	ASTM E2242-13
Time In	ASTM E2242-13
Time Out	ASTM E2242-13

Wet Chemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Bicarbonate as CaCO ₃	SM2320B - Titration
Carbonate as CaCO ₃	SM2320B - Titration
Chloride (MWMT)	SM4500Cl-E
Cyanide, WAD (MWMT)	SM4500-CN I,E-Colorimetric w/ distillation
Fluoride (MWMT)	SM4500F-C
Hydroxide as CaCO ₃	SM2320B - Titration
Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction
Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor
Residue, Filterable (TDS) @180C (MWMT)	SM2540C
Sulfate (MWMT)	D516-07 - Turbidimetric
Total Alkalinity	SM2320B - Titration

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

REPAD.05.06.05.01

Wood - E&I Solutions, Inc.ACZ Project ID: **L57215**

Bicarbonate as CaCO ₃	SM2320B - Titration
Carbonate as CaCO ₃	SM2320B - Titration
Chloride (MWMT)	SM4500Cl-E
Fluoride (MWMT)	SM4500F-C
Hydroxide as CaCO ₃	SM2320B - Titration
Nitrate/Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction
Nitrite as N (MWMT)	M353.2 - Automated Cadmium Reduction
Nitrogen, total Kjeldahl (MWMT)	M351.2 - Block Digestor
Residue, Filterable (TDS) @180C (MWMT)	SM2540C
Sulfate (MWMT)	D516-07 - Turbidimetric
Total Alkalinity	SM2320B - Titration

Wood - E&I Solutions, Inc.

ACZ Project ID: L57215

Date Received: 02/03/2020 17:07

Received By:

Date Printed: 2/4/2020

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Is the Chain of Custody form or other directive shipping papers present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does this project require special handling procedures such as CLP protocol?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Are any samples NRC licensable material?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) If samples are received past hold time, proceed with requested short hold time analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Is the Chain of Custody form complete and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A change was made in the Sample ID, date, line 4 section prior to ACZ custody.			

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Are all labels on containers and are they intact and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) For preserved bottle types, was the pH checked and within limits? ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12) Is there sufficient sample volume to perform all requested work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Is the custody seal intact on all containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14) Are samples that require zero headspace acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15) Are all sample containers appropriate for analytical requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16) Is there an Hg-1631 trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17) Is there a VOA trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18) Were all samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA32298	16.2	NA	20	Yes
NA32283	19.7	NA	15	Yes
NA32288	20.3	NA	20	Yes
NA32290	20.4	NA	22	Yes
NA32295	19.7	NA	19	Yes
NA32284	20.2	NA	21	Yes
NA32299	8.3	NA	20	Yes
NA32285	20.4	NA	22	Yes

Wood - E&I Solutions, Inc.

ACZ Project ID: L57215

Date Received: 02/03/2020 17:07

Received By:

Date Printed: 2/4/2020

NA32289	20.4	NA	23	Yes
NA32294	19.7	NA	20	Yes
NA32291	20.1	NA	20	Yes
NA32297	18.7	NA	22	Yes

Was ice present in the shipment container(s)?

No - Wet or gel ice was not present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

Document Program LaMP Chain of Custody Record

**Atlantic
Richfield
Company**
L57215-20

BP/ARC Site Node Path:

BP/ARC Facility Name:

Req Due Date (mm/dd/yy):

Lab Work Order Number:

Rush TAT: Yes

No X

Name: ACZ Laboratories, Inc.

Address: 2773 Downhill Dr. Steamboat

Address: 2773 Downhill Dr. Steamboat Springs, CO, 80487

M: Sue Webber (suew@acz.com)

Lead Regulatory Agency

none: 970-879-6590

none: 970-879-6590

Shipping Acct#: 2897-1804-4 (RC #)

Enfos Proposal No:

Work Release No:

Accounting Mode:

Provision

OOC-RM

Order No. _____

Info: OU-4b OU-5 Soil

Stage:	Activity:
1	1.1
2	2.1
3	3.1
4	4.1
5	5.1
6	6.1
7	7.1
8	8.1
9	9.1
10	10.1
11	11.1
12	12.1
13	13.1
14	14.1
15	15.1
16	16.1
17	17.1
18	18.1
19	19.1
20	20.1
21	21.1
22	22.1
23	23.1
24	24.1
25	25.1
26	26.1
27	27.1
28	28.1
29	29.1
30	30.1
31	31.1
32	32.1
33	33.1
34	34.1
35	35.1
36	36.1
37	37.1
38	38.1
39	39.1
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41	41.1
42	42.1
43	43.1
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45	45.1
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68	68.1
69	69.1
70	70.1
71	71.1
72	72.1
73	73.1
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76	76.1
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86	86.1
87	87.1
88	88.1
89	89.1
90	90.1
91	91.1
92	92.1
93	93.1
94	94.1
95	95.1
96	96.1
97	97.1
98	98.1
99	99.1
100	100.1

Statistical Analysis

Report Type &

Report Type & QC Level

RCEBM: Chuck Stilwell

RCEBM: Chuck Stilwell

Phone: 713-998-2443

Phone: 713-998-2443

Email: Chuck.Stilwell@bp.comEmail: Chuck.Stilwell@bp.com[illegible]

L57215

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

Req Due Date (mm/dd/yy):

BP/ARC Site Node Path: NV_YERINGTON

Lab Work Order Number:

BP/ARC Facility Name: Anaconda Copper Mine Site

Lab Name: ACZ Laboratories, Inc.		BP/ARC Facility Address: 1 Austin Circle		Consultant/Contractor: Wood - E&I Solutions, Inc.	
Lab Address: 2773 Downhill Dr, Steamboat Springs, CO, 80487		City, State, ZIP Code: Yerington, Nevada		Consultant/Contractor Project No: SA18170340.005.055B	
Lab EM: Sue Webber (suew@aczc.com)		Lead Regulatory Agency: NDEP Abandoned Mine Lands Program		Address: 10940 White Rock Rd, Ste 190, Rancho Cordova, CA 95670	
Lab Phone: 970-879-6590		California Global ID No.:		Consultant/Contractor PM: Kent Parrish	
Lab Shipping Acct: 2897-1804-4 (RC #)		Work Release No:		Phone: 916-636-3200 Email: Kent.Parrish@woodplc.com	
Lab Bottle Order No:		Accounting Mode: Provision OOC-BU OOC-RM		Email Report/EDD To: lynda.lombardi@woodplc.com	
Other Info: OU-4b_OU-5_Soil		Stage: Activity:		Invoice To: BP/ARC Contractor X	

Lab No.	Sample Description	Date	Time	Matrix			No. Containers / Preservative			Requested Analyses				Report Type & QC Level		Comments	
				Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	MWMP Metals ¹	MWMP Anions - Cl, F, SO ₄ , NO ₃ +NO ₂ as N	MWMP TKN as N: WAD CN	MWMP TDS, pH, Alkalinity ²		MWMP Ra-226/ Ra-228
5	WRSB207_0.5-3	1/22/20	0918	X			1	1				X	X	X	X	LD/MS/MSD	<p>Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.</p> <p>Analyses to be performed on extract following MWMP (E2242)</p> <p>¹Metals are: Al, Ba, B, Ca, Fe, K, Li, Mg, Na, P, Sr, Sn, Ti, by SW6010B; As, Be, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Sb, Se, Ag, Th, Ti, U, V, Zn by SW6020; Hg by SW7470A.</p> <p>² Total Alk, Bicarbk Alk (as CaCO₃)</p> <p>Sample ID: WRSB234_0.5-3</p>
6	WRSB207_6-15		0938	X			1	1				X	X	X			
7	WRSB207_25-35		1002	X			1	1				X	X	X			
8	WRSB207_65-75		1103	X			2	2				X	X	X			
9	WRSB207_105-115		1337	X			1	1				X	X	X			
10	WRSB207_125-135		1458	X			1	1				X	X	X			
11	WRSB207_140-145	1/23/20	0937	X			1	1				X	X	X			
12	WRSB207_150-155	1/23/20	0940	X			1	1				X	X	X			
13	WRSB234_0.5-3	1/23/20	1138	X			2	2				X	X	X			
14	WRSB234_6-15	1/23/20	1200	X			1	1				X	X	X			

Relinquished By / Affiliation		Date		Time		Accepted By / Affiliation		Date		Time	
M. S. K. / Wood		1/28/20		1200		M. S. K. / Wood		1/28/20		1200	
M. S. K. / Wood		1/28/20		1600		M. S. K. / Wood		1/28/20		1707	

Sampler's Name: Rachael Klier

Sampler's Company: Wood

Shipment Method: FedEx

Shipment Tracking No: See attached list

Special Instructions: Use NV approved protocols for MWMP extractions.

THIS LINE - LAB USE ONLY: Custody Seals in Place: Yes / No Temp Blank: Yes / No Cooler Temp on Receipt: °F/C Trip Blank: Yes / No MS/MSD Sample Submitted: Yes / No

L57215

Laboratory Management Program LAMP Chain of Custody Record

Page 3 of 4

Atlantic Richfield Company
A BP affiliated company

Req Due Date (mm/dd/yy):

NV_YERINGTON

BP/ARC Site Node Path:

BP/ARC Facility Name:

Lab Work Order Number:

Anaconda Copper Mine Site

BP/ARC Facility Address:

BP/ARC Facility Name:

Lab Name: ACZ Laboratories, Inc.
Lab Address: 2773 Downhill Dr, Steamboat Springs, CO, 80487
Lab PM: Sue Webber (suew@aczc.com)
Lab Phone: 970-879-6590
Lab Shipping Acct: 2897-1804-4 (RC #)
Lab Bottle Order No:
Other Info: OU-4b_OU-5_Soil

Consultant/Contractor: Wood - E&I Solutions, Inc.
Consultant/Contractor Project No: SA18170340.005.055B
Address: 10940 White Rock Rd, Ste 190, Rancho Cordova, CA 95670
Consultant/Contractor PM: Kent Parrish
Phone: 916-636-3200 Email: Kent.Parrish@woodplc.com
Email Report/EDD To: lynda.lombardi@woodplc.com
Invoice To: BP/ARC Contractor X

Lab No.	Sample Description	Date	Time	Requested Analyses										Report Type & QC Level	
				Matrix	No. Containers / Preservative	MMWP Metals ¹	MMWP Anions - Cl, F, SO ₄	MMWP TKN as N, WAD CN	MMWP TDS, pH, Alkalinity ²	LD/MS/MSD	Standard	Full Data Package	Comments		
15	WRSB223-0.5-3	1/23/20	1335	Soil / Solid	1	X	X	X	X	X	Analyses to be performed on		Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.		
16	WRSB223-6-15	1/23/20	1346	Water / Liquid	1	X	X	X	X	X	extract following MMWP (E2242)				
17	WRSB228-0.5-3	1/23/20	1428	Air / Vapor	1	X	X	X	X	X	¹ Metals are: Al, Ba, B, Ca, Fe, K, Li, Mg, Na, P, Sr, Sn, Ti, by SW6010B;				
18	WRSB228-FD-0.5-3	1/23/20	1430	Unpreserved	1	X	X	X	X	X	As, Be, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Sb, Se, Ag, Th, Ti, U, V,				
19	WRSB228-6-15	1/23/20	1444	HCl	1	X	X	X	X	X	Zn by SW6020; Hg by SW7470A.				
20	WRSB227-0.5-3	1/24/20	0840	HNO ₃	1	X	X	X	X	X	² Total Alk, Bicarb Alk (as CaCO ₃)				
	WRSB227-FD-0.5-3	1/24/20	0842	H ₂ SO ₄	1	X	X	X	X	X					
	WRSB227-6-15	1/24/20	0850	Total Number of Containers	1	X	X	X	X	X					
	WRSB233-0.5-3	1/24/20	0935		1	X	X	X	X	X					
	WRSB233-6-15	1/24/20	0942		1	X	X	X	X	X					

Relinquished By / Affiliation: *Rachael Klier* / Wood
Date: 1/28/20 Time: 1200
Accepted By / Affiliation: *Rachael Klier* / Wood
Date: 1/28/20 Time: 1200

Ship Date: 1/28/20
Shipment Method: Fed Ex
Shipment Tracking No: See attached list

Special Instructions: Use NV approved protocols for MMWP extractions.

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No Trip Blank: Yes / No Cooler Temp on Receipt: °F/C MS/MSD Sample Submitted: Yes / No

Date	By	Applies To	Instruction
2/4/2020	zme	Production Acct:AMECCA Samp:L57215-13	Run QC
2/4/2020	zme	Production Acct:AMECCA Samp:L57215-08	Run QC

Meteoritic Water Mobility

QC List Type: I-X-MWME
 QCListMatClass: SOLID
 Bench Sheet List: I-RFA-CN-FREE
 QC Ref: CSTD3X-PBS-LFB-MSX2
 Group ID: SP-G-MWMT
 Method Ref: ASTM E2242-13
 SOP Ref: SOPSO036

WG493948



ACZ Laboratories, Inc

Instrument ID: SOILSPREP

Analyst: GK4

ACZ Dept: 20

Create Date: 03/19/2020 15:00

Start Date/Time: 03/20/2020 8:00

End Date/Time: 03/26/2020 12:00

SE Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Particle Size over 5 cm (%)	Extracti on pH (units)	Extracti on Temper ature (C)	Pre Filter pH (units)	Post Filter pH (units)	Dry Weight (g)	Leachat e Volume (mL)	Retaine d Moisture (%)	Time In	Time Out	Extracti on Time	Temper ature
1	WG493948CSTD1	NONE	as rec		03/20/20 8:00		10.04		10.03	10.03							21.1
2	WG493948CSTD2	NONE	as rec		03/20/20 8:00		7.01		7.03	7.03							21
3	WG493948CSTD3	NONE	as rec		03/20/20 8:00		2.04		2.04	2.04							20.9
4	WG493948ICV	PCN58541	as rec		03/20/20 8:00		3.92		3.96	4.01							21.2
5	WG493948ICV1	NONE	as rec		03/20/20 16:45		4.91	23	6.16	6.12	0	5005.2		3/19/2020 9:30:00 AM	3/20/2020 9:40:00 AM	24 1666666666	20.7
6	L57215-01	WRSB206_145-155	as rec		03/21/20 0:57	0	4.91	23	8.76	8.67	5000	4547.2		3/19/2020 9:30:00 AM	3/21/2020 5:30:00 PM	55 9999999999	20.2
7	L57215-02	WRSB206_175-182	as rec		03/21/20 9:08	0	4.91	23	8.89	8.76	5000	4888.4		3/19/2020 9:30:00 AM	3/21/2020 5:30:00 PM	55 9999999999	20.1
8	L57215-03	WRSB206_187-192	as rec		03/21/20 17:30	0	4.91	23	8.83	8.78	5000	4777.9		3/19/2020 9:30:00 AM	3/21/2020 5:30:00 PM	55 9999999999	20.1
9	L57215-04	WRSB206_197-202	as rec		03/21/20 17:30	0	4.91	23	8.42	8.46	5000	3970.6		3/19/2020 9:30:00 AM	3/21/2020 5:30:00 PM	55 9999999999	20
10	L57215-05	WRSB207_0_5-3	as rec		03/20/20 13:05	0	4.91	23	8.17	8.33	5000	5012	8.87	3/19/2020 9:30:00 AM	3/20/2020 1:05:00 PM	27 5833333333	20.1
11	L57215-06	WRSB207_6-15	as rec		03/20/20 12:55	0	4.91	23	8.19	8.23	5000	5004.8	10.25	3/19/2020 9:30:00 AM	3/20/2020 12:55:00 PM	27 4166666663	20.9
12	L57215-07	WRSB207_25-35	as rec		03/20/20 14:30	0	4.91	23	8.22	8.3	5000	5001.5	13.25	3/19/2020 9:30:00 AM	3/20/2020 2:30:00 PM	28 9999999999	20
13	L57215-08	WRSB207_65-75	as rec		03/20/20 13:40	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	28 1666666663	20.1
14	L57215-08MS1	MS200120-3	as rec		03/20/20 13:40	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	28 1666666663	20.1
15	L57215-08MSD1	MS200120-3	as rec		03/20/20 13:40	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	28 1666666663	20.1
16	L57215-08MS2	MS200302-4	as rec		03/20/20 13:40	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	28 1666666663	20.1
17	WG493948CCV1	PCN58541	as rec		03/24/20 19:02		3.98		4.02	3.99							20.5
18	L57215-08MSD2	MS200302-4	as rec		03/20/20 13:40	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	28 1666666663	20.1
19	L57215-08DUP	NONE	as rec		03/20/20 14:00	0	4.91	23	9.01	8.97	5000	5020.2	11.16	3/19/2020 9:30:00 AM	3/20/2020 2:00:00 PM	28 5	20.3
20	WG493948LFB1	MS200302-4	as rec		03/25/20 19:37		4.91	23	6.16	6.12	0	5005.2		3/19/2020 9:30:00 AM	3/20/2020 9:40:00 AM	24 1666666666	20.7
21	WG493948LFB2	MS200120-3	as rec		03/26/20 3:48		4.91	23	6.16	6.12	0	5005.2		3/19/2020 9:30:00 AM	3/20/2020 9:40:00 AM	24 1666666666	20.7

Report Comments: analysis dates manually entered to reflect date from "Time out" column
 Internal Comments: WG493948ICV not needed. No data entered. csa 5-4-20

AREV: GK4 5/4/20 Initials, Date
 SREV: CRK 5-4-20 Initials, Date

Meteoritic Water Mobility

QC List Type: I-X-MWME
 QCListMatClass: SOLID
 Bench Sheet List: I-RFA-CN-FREE
 QC Ref: CSTD3X-PBS-LFB-MSX2
 Group ID: SP-G-MWMT
 Method Ref: ASTM E2242-13
 SOP Ref: SOPSO036

WG493948



ACZ Laboratories, Inc

Instrument ID: SOILSPREP
 Analyst: GKH
 ACZ Dept: 20

Create Date: 03/19/2020 15:00
 Start Date/Time: 03/20/2020 8:00
 End Date/Time: 03/26/2020 12:00

SE	Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Particle Size over 5 cm (%)	Extracti on pH (units)	Extracti on Temperature (C)	Pre Filter pH (units)	Post Filter pH (units)	Dry Weight (g)	Leachat e Volume (mL)	Retaine d Moisture (%)	Time In Out	Extracti on Time	Temper ature
22		WG493948CCV2	PCN58541	as rec		03/26/20 12:00		3.98		4.01	3.97						20.9

Sample Login Comments

L57215-01 BUCKET || Soils hallway
 L57215-02 BUCKET || Soils hallway
 L57215-03 BUCKET || Soils hallway
 L57215-04 BUCKET || Soils hallway
 L57215-05 BUCKET || Soils hallway
 L57215-06 BUCKET || Soils hallway
 L57215-07 BUCKET || Soils hallway
 L57215-08 BUCKET(2) || Soils hallway
 L57215-08MS1 ICPMS Spike
 L57215-08MS2 ICP Spike
 L57215-08MSD1 ICPMS Spike
 L57215-08MSD2 ICP Spike
 WG493948CCV1 pH QC
 WG493948CSTD1 pH QC
 WG493948CSTD2 pH QC
 WG493948CSTD3 pH QC
 WG493948ICV1 WG493948ICV1
 WG493948LFB1 ICP LFB
 WG493948LFB2 ICPMS LFB

Report Comments:

Internal Comments

AREV:

Initials, Date

SREV:

Initials, Date

ACZ Laboratories, Inc.
Geochemistry Department
Data Review and Reagents

Data Reviewer: GKH
Date: 4/30/20

Analyst: GKH

Approved: GKH
Date: 4-30-20

Workgroup: WG493948

Analysis Date: 3/19/20 - 3/26/20

Sample type used: SC

(Extraction) / Digestion / Analysis (Prep) / Calc:

	Yes	No	N/A
1. Is the raw data checked to the computer printout for transcription errors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the %solid or TS attached for dilution factors?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Were proper volumes of reagents used per final volume?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Was the proper sub-sample used (as received, client prep, <2000, <500, <250, dry, R&P, RPLL)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were the dilution factor calculation checked (final volume, weight, %solid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Did the RPD pass?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Does all the spike information correlate with each other?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Is the appropriate spike in the computer-designated line?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Are all errors properly corrected (single-line crossout, dated & initialed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is the standard/reagent information complete and current?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Is your instrument calibration passing (and included in the data package if needed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FOR SREV: QA/QC approval for initial training or 2 sets of initials for WG & LIMS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Standard/Reagent/Equipment*	PCN/SCN/LOT #*	Expiration Date
SEE ATTACHED		
*Workgroup documentation must include the lot number(s) of all disposable vessels used for volumetric measurements.		

Comments: _____

ACZ Laboratories, Inc.
Geochemistry Department
Data Review and Reagents

Data Reviewer: GKH

Date: 3/26/20

Approved: CEA

Date:

3-31-20

Analyst: GKH

Workgroup: ~~WG444~~ WG443948

Analysis Date: GKH 3/26/20

3/19/20 - 3/26/20

Sample type used: SO

(Extraction) Digestion / Analysis (Prep) / Calc:

	Yes	No	N/A
1. Is the raw data checked to the computer printout for transcription errors?	✓		
2. Is the %solid or TS attached for dilution factors?			✓
3. Were proper volumes of reagents used per final volume?			✓
4. Was the proper sub-sample used (as received) client prep, <2000, <500, <250, dry, R&P, RPLL)?	✓		
5. Were the dilution factor calculation checked (final volume, weight, %solid)?			✓
6. Did the RPD pass?			✓
7. Does all the spike information correlate with each other?	✓		
8. Is the appropriate spike in the computer-designated line?	✓		
9. Are all errors properly corrected (single-line crossout, dated & initialed)?	✓		
10. Is the standard/reagent information complete and current?	✓		
11. Is your instrument calibration passing (and included in the data package if needed)?	✓		
FOR SREV: QA/QC approval for initial training or 2 sets of initials for WG & LIMS?	✓		

Standard/Reagent/Equipment*	PCN/SCN/LOT #*	Expiration Date
BUFFER 10	58541	3/31/21
7	60476	7/31/21
2	58293	12/31/20

*Workgroup documentation must include the lot number(s) of all disposable vessels used for volumetric measurements.

Comments:

METEORIC WATER MOBILITY TEST

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487

Analyst: GKH
Date: _____
Start Time: 3/19/20 8a
End Time: 3/25/20 12p

Workgroup Number: wg493948

Feed Moisture

Sx Number	Pan Weight (g)	Wet Sx + Pan Weight (g)	Dry Sx + Pan Weight (g)	% Solid	% Feed Moisture
L57215-01	141.46	642.42	621.81	95.88589907	4.114100926
L57215-02	151.3	664.61	653.18	97.77327541	2.226724591
L57215-03	160.85	683.93	675.85	98.4553032	1.544696796
L57215-04	150.62	670.92	666.96	99.23890063	0.761099366
L57215-05	137.25	642.59	629.54	97.41758024	2.582419757
L57215-06	146.52	655.34	644.01	97.77327935	2.226720648
L57215-07	151.5	655.16	646.34	98.24881865	1.751181352
L57215-08	145.42	647.9	628.01	96.0416335	3.958366502
L57215-08 DUP	148.86	652.35	632.36	96.02971261	3.970287394

Screening-Particle Size

Sx Number	Sx Weight (g)	Sx > 5 cm (g)	Sx < 5 cm (g)	%Sx > 5cm	%Sx < 5cm
L57215-01	5215	0	5215	0	100
L57215-02	5114	0	5114	0	100
L57215-03	5079	0	5079	0	100
L57215-04	5039	0	5039	0	100
L57215-05	5133	0	5133	0	100
L57215-06	5114	0	5114	0	100
L57215-07	5090	0	5090	0	100
L57215-08	5207	0	5207	0	100
L57215-08 DUP	5207	0	5207	0	100

Residual Moisture

Sx Number	Pan Weight (g)	Wet Sx + Pan Weight (g)	Dry Sx + Pan Weight (g)	% Solid	% Res. Moisture
L57215-01	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-02	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-03	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-04	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-05	73.22	369.03	342.8	91.13282174	8.867178256
L57215-06	73.19	359.91	330.51	89.74609375	10.25390625
L57215-07	73.97	409.91	365.4	86.75061023	13.24938977
L57215-08	75.55	371.62	325.05	84.27061168	15.72938832
L57215-08 DUP	73.34	351.78	320.72	88.84499354	11.15500646

Time and Temperature for Residual Moisture: 24HR @105C

Sample Description: Sand/Fine sand/ Small-Mid sized aggregates

Centrifuge or pre-filter? Centrifuge L57215-01/02/03

Observation of changes: N/A

Storage Conditions of "as rec" sample: Room

METEORIC WATER MOBILITY TEST

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487

Analyst: **GKH**
Date:
Start Time: **3/19/20 8a**
End Time: **3/25/20 12p**

Workgroup Number: Wg493948

Loaded Sample Wet Weight

Sx Number	Sx Wet Weight (g)
L57215-01	5215
L57215-02	5114
L57215-03	5079
L57215-04	5039
L57215-05	5133
L57215-06	5114
L57215-07	5090
L57215-08	5207
L57215-08 DUP	5207

H2O rate start: 3.5mL/Min
H2O rate finish: 3.5mL/Min

Filter Type/pore size: .45um
Special Comments:

Dry Weight Calculations

Sx Number	Sx Weight (g) (From above)	(x)	% Solid	=	Dry Sx Weight (g)	+	Cubetainer Weight (g)	=	Target Leachate & Cubtainer Wt (g)
L57215-01	5215	x	0.958858991	=	5000.449637	+	140.7	=	5141.14964
L57215-02	5114	x	0.977732754	=	5000.125304	+	138.3	=	5138.4253
L57215-03	5079	x	0.984553032	=	5000.54485	+	137.4	=	5137.94485
L57215-04	5039	x	0.992389006	=	5000.648203	+	138.1	=	5138.7482
L57215-05	5133	x	0.974175802	=	5000.444394	+	137.8	=	5138.24439
L57215-06	5114	x	0.977732794	=	5000.125506	+	139.9	=	5140.02551
L57215-07	5090	x	0.982488186	=	5000.864869	+	137.6	=	5138.46487
L57215-08	5207	x	0.960416335	=	5000.887856	+	134.2	=	5135.08786
L57215-08 DUP	5207	x	0.960297126	=	5000.267135	+	138.2	=	5138.46714

Final Leachate Weight

Sx Number	Actual Leachate & Cubetainer	-	Cubetainer Wt (g)	=	Final Leachate Volume (mL)
L57215-01	3172.1	-	140.7	=	3031.4
L57215-02	2000.9	-	138.3	=	1862.6
L57215-03	1080.7	-	137.4	=	943.3
L57215-04	464	-	138.1	=	325.9
L57215-05	5149.8	-	137.8	=	5012
L57215-06	5144.7	-	139.9	=	5004.8
L57215-07	5139.1	-	137.6	=	5001.5
L57215-08	5145.9	-	134.2	=	5011.7
L57215-08 DUP	5158.4	-	138.2	=	5020.2

Comments: L7215-01-04:Failed Column Extractions. Sample was extracted for 8 hours via MWMT roll using proper cacula
Calculations can be found on WG benchesheet .
L57215-01: 4547.2 is the total leachate vol. L57215-02: 4888.4 is the total leachate vol.
L57215-03: 4777.9 is the total leachate vol. L57215-04: 3970.6 is the total leachate vol.

QC List Type: I-X-MWME
 QCListMatClass: SOLID
 Bench Sheet List: I-RFA-CN-FREE
 QC Ref: CSTD3X-PBS-LFB-MSX2
 Group ID: SP-G-MWMT
 Method Ref: ASTM E2242-13
 SOP Ref: SOPS0036

WG493948



Instrument ID: SOILSPREP
 Analyst:
 ACZ Dept: 20
 Create Date: 03/19/2020 15:00
 Start Date/Time:
 End Date/Time:

L57215-2007241055

SE Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Particle Size over 5 cm	Extraction pH	Extraction Temperature (C)	Pre Filter pH	Post Filter pH	Dry Weight	Leachate Volume	Retained Moisture	Time In	Time Out	Extraction Temperature
1	WG493948CSTD1	NONE					10.04		10.03							21.1
2	WG493948CSTD2	NONE					7.01		7.03							21.0
3	WG493948CSTD3	NONE					2.04		2.04							20.9
4	WG493948ICV	PCN58541					3.92		3.96	4.01						21.2
5	WG493948PBS	NONE					4.91		6.16	6.12						20.9
6	L57215-01	WRSB206_145-155							8.76	8.67						20.2
7	L57215-02	WRSB206_175-182							8.89	8.76						20.1
8	L57215-03	WRSB206_187-192							8.83	8.78						20.1
9	L57215-04	WRSB206_197-202							8.42	8.36						20.0
10	L57215-05	WRSB207_05-3							8.17	8.33						20.1
11	L57215-06	WRSB207_6-15							8.19	8.23						20.9
12	L57215-07	WRSB207_25-35							8.23	8.30						20.0
13	L57215-08	WRSB207_66-75							9.04	9.02						20.1
14	L57215-08MS1	MS200120-3														
15	L57215-08MSD1	MS200120-3														
16	L57215-08MS2	IL200302-4														
17	WG493948CCV1	PCN58541					3.98		4.02	3.99						20.5
18	L57215-08MSD2	IL200302-4					4.91		9.04	9.02						20.1
19	L57215-08DUP	NONE							9.01	8.97						20.3
20	WG493948LFB1	IL200302-4							6.16	6.12						20.7
21	WG493948LFB2	MS200120-3														
22	WG493948CCV2	PCN58541					3.98		4.01	3.97						20.9

Report Comments:

Internal Comments

AREV:

Initials, Date

SREV:

Initials, Date

WG493948

Date Reported: 30-Apr-20
Run ID: R1779723
Date Analyzed: 20-Mar-20
ICAL Workgroup:
Instrument ID: SOILSPREP

WG493948ICV1

Tag:

Measured: 3/20/2020 8:00:00 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			3.92		
SREV	POST FILTER PH	TEXT		1		units	NEED			4.01		
SREV	PRE FILTER PH	TEXT		1		units	NEED			3.96		
SREV	TEMPERATURE	PREP	20.7	1		C	NEED	0.1	0.1			

L57215-06

Tag:

Measured: 3/20/2020 12:55:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	27.41667	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	5004.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			8.23		
SREV	PRE FILTER PH	WMT-96		1		units	++			8.19		
SREV	RETAINED MOISTURE	WMT-96		1		%	++			10.25		
SREV	TEMPERATURE	WMT-96	20.9	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

L57215-05

Tag:

Measured: 3/20/2020 1:05:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91	TA	
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1		TA	
SREV	EXTRACTION TIME	WMT-96	27.58333	1		hrs	++				TA	
SREV	LEACHATE VOLUME	WMT-96	5012	1		mL	++				TA	
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++				TA	
SREV	POST FILTER PH	WMT-96		1		units	++			8.33	TA	
SREV	PRE FILTER PH	WMT-96		1		units	++			8.17	TA	
SREV	RETAINED MOISTURE	WMT-96		1		%	++			8.87	TA	
SREV	TEMPERATURE	WMT-96	20.1	1		C	++	0.1	0.1		TA	
SREV	TIME IN	WMT-96		1			++				TA	
SREV	TIME OUT	WMT-96		1			++				TA	
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++				TA	

L57215-08

Tag:

Measured: 3/20/2020 1:40:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	28.16667	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			9.02		
SREV	PRE FILTER PH	WMT-96		1		units	++			9.04		
SREV	RETAINED MOISTURE	WMT-96		1		%	++			15.73		
SREV	TEMPERATURE	WMT-96	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

L57215-08MS1

Tag:

Measured: 3/20/2020 1:40:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666279	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			9.02		
SREV	PRE FILTER PH	TEXT		1		units	++			9.04		
SREV	RETAINED MOISTURE	TEXT		1		%	++			15.73		
SREV	TEMPERATURE	PREP	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-08MS2

Tag:

Measured: 3/20/2020 1:40:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666279	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			9.02		
SREV	PRE FILTER PH	TEXT		1		units	++			9.04		
SREV	RETAINED MOISTURE	TEXT		1		%	++			15.73		
SREV	TEMPERATURE	PREP	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-08MSD1

Tag:

Measured: 3/20/2020 1:40:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666279	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			9.02		
SREV	PRE FILTER PH	TEXT		1		units	++			9.04		
SREV	RETAINED MOISTURE	TEXT		1		%	++			15.73		
SREV	TEMPERATURE	PREP	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-08MSD2

Tag:

Measured: 3/20/2020 1:40:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666279	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			9.02		
SREV	PRE FILTER PH	TEXT		1		units	++			9.04		
SREV	RETAINED MOISTURE	TEXT		1		%	++			15.73		
SREV	TEMPERATURE	PREP	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-08DUP

Tag:

Measured: 3/20/2020 2:00:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	28.5	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5020.2	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			8.97		
SREV	PRE FILTER PH	TEXT		1		units	++			9.01		
SREV	RETAINED MOISTURE	TEXT		1		%	++			11.16		
SREV	TEMPERATURE	PREP	20.3	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-07

Tag:

Measured: 3/20/2020 2:30:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91	TA	
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1		TA	
SREV	EXTRACTION TIME	WMT-96	29	1		hrs	++				TA	
SREV	LEACHATE VOLUME	WMT-96	5001.5	1		mL	++				TA	
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++				TA	
SREV	POST FILTER PH	WMT-96		1		units	++			8.3	TA	
SREV	PRE FILTER PH	WMT-96		1		units	++			8.22	TA	
SREV	RETAINED MOISTURE	WMT-96		1		%	++			13.25	TA	
SREV	TEMPERATURE	WMT-96	20.0	1		C	++	0.1	0.1		TA	
SREV	TIME IN	WMT-96		1			++				TA	
SREV	TIME OUT	WMT-96		1			++				TA	
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++				TA	

WG493948PBS

Tag:

Measured: 3/20/2020 4:45:44 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	666666661	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5005.2	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			6.12		
SREV	PRE FILTER PH	TEXT		1		units	++			6.16		
SREV	TEMPERATURE	PREP	20.7	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

L57215-01

Tag:

Measured: 3/21/2020 12:57:10 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	56	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	4547.2	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			8.67		
SREV	PRE FILTER PH	WMT-96		1		units	++			8.76		
SREV	TEMPERATURE	WMT-96	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

L57215-02

Tag:

Measured: 3/21/2020 9:08:36 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	56	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	4888.4	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			8.76		
SREV	PRE FILTER PH	WMT-96		1		units	++			8.89		
SREV	TEMPERATURE	WMT-96	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

L57215-03

Tag:

Measured: 3/21/2020 5:30:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	56	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	4777.9	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			8.78		
SREV	PRE FILTER PH	WMT-96		1		units	++			8.83		
SREV	TEMPERATURE	WMT-96	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

L57215-04

Tag:

Measured: 3/21/2020 5:30:00 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	56	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	3970.6	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			8.46		
SREV	PRE FILTER PH	WMT-96		1		units	++			8.42		
SREV	TEMPERATURE	WMT-96	20.0	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

WG493948CCV1

Tag:

Measured: 3/24/2020 7:02:56 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			3.98		
SREV	POST FILTER PH	TEXT		1		units	NEED			3.99		
SREV	PRE FILTER PH	TEXT		1		units	NEED			4.02		
SREV	TEMPERATURE	PREP	20.5	1		C	NEED	0.1	0.1			

WG493948LFB1

Tag:

Measured: 3/25/2020 7:37:14 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666861	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5005.2	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			6.12		
SREV	PRE FILTER PH	TEXT		1		units	++			6.16		
SREV	TEMPERATURE	PREP	20.7	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

WG493948LFB2

Tag:

Measured: 3/26/2020 3:48:40 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666861	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5005.2	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			6.12		
SREV	PRE FILTER PH	TEXT		1		units	++			6.16		
SREV	TEMPERATURE	PREP	20.7	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

WG493948CCV2

Tag:

Measured: 3/26/2020 12:00:06 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			3.98		
SREV	POST FILTER PH	TEXT		1		units	NEED			3.97		
SREV	PRE FILTER PH	TEXT		1		units	NEED			4.01		
SREV	TEMPERATURE	PREP	20.9	1		C	NEED	0.1	0.1			

Meteoritic Water Mobility

QC List Type: I-X-MWME
 QCListMatClass: SOLID
 Bench Sheet List: I-RFA-CN-FREE
 QC Ref: CSTD3X-PBS-LFB-MSX2
 Group ID: SP-G-MWMT
 Method Ref: ASTM E2242-13
 SOP Ref: SOPSO036

WG493948



ACZ Laboratories, Inc

Instrument ID: SOILSPREP

Analyst: GKH

ACZ Dept: 20

Create Date: 03/19/2020 15:00

Start Date/Time: 03/19/2020 8:00

End Date/Time: 03/26/2020 12:00

SE Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Particle Size over 5 cm (%)	Extracti on pH	Extracti on Temperature	Pre Filter pH	Post Filter pH	Dry Weight	Leachate Volume	Retained Moisture (%)	Time In	Time Out	Extracti on Temperature
1	WG493948CSTD1	NONE	As Rec		03/19/20 8:00		10.04		10.03	10.03						21.1
2	WG493948CSTD2	NONE	As Rec		03/19/20 16:11		7.01		7.03	7.03						21
3	WG493948CSTD3	NONE	As Rec		03/20/20 0:22		2.04		2.04	2.04						20.9
4	WG493948ICV	PCN58541	As Rec		03/20/20 8:34		3.92		3.96	4.01						21.2
5	WG493948PBS	NONE	As Rec		03/20/20 16:45		4.91	23	6.16	6.12	0	5005.2		3/19/2020 9:40:00 AM	3/20/2020 9:40:00 AM	20.7
6	L57215-01	WRSB206_145-155	As Rec		03/21/20 0:57	0	4.91	23	8.76	8.67	5000	4547.2		3/19/2020 9:30:00 AM	3/21/2020 9:30:00 PM	20.2
7	L57215-02	WRSB206_175-182	As Rec		03/21/20 9:08	0	4.91	23	8.89	8.76	5000	4888.4		3/19/2020 9:30:00 AM	3/21/2020 9:30:00 PM	20.1
8	L57215-03	WRSB206_187-192	As Rec		03/21/20 17:20	0	4.91	23	8.83	8.78	5000	4777.9		3/19/2020 9:30:00 AM	3/21/2020 9:30:00 PM	20.1
9	L57215-04	WRSB206_197-202	As Rec		03/22/20 1:31	0	4.91	23	8.42	8.46	5000	3970.6		3/19/2020 9:30:00 AM	3/21/2020 9:30:00 PM	20
10	L57215-05	WRSB207_0-5-3	As Rec		03/22/20 9:42	0	4.91	23	8.17	8.33	5000	5012	8.87	3/19/2020 9:30:00 AM	3/20/2020 1:05:00 PM	20.1
11	L57215-06	WRSB207_6-15	As Rec		03/22/20 17:54	0	4.91	23	8.19	8.23	5000	5004.8	10.25	3/19/2020 9:30:00 AM	3/20/2020 12:55:00 PM	20.9
12	L57215-07	WRSB207_25-35	As Rec		03/23/20 2:05	0	4.91	23	8.22	8.3	5000	5001.5	13.25	3/19/2020 9:30:00 AM	3/20/2020 2:30:00 PM	20
13	L57215-08	WRSB207_65-75	As Rec		03/23/20 10:17	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	20.1
14	L57215-08MS1	MS200120-3	As Rec		03/23/20 18:28	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	20.1
15	L57215-08MSD1	MS200120-3	As Rec		03/24/20 2:40	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	20.1
16	L57215-08MS2	I200302-4	As Rec		03/24/20 10:51	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	20.1
17	WG493948CCV1	PCN58541	As Rec		03/24/20 19:02		3.98		4.02	3.99						20.5
18	L57215-08MSD2	I200302-4	As Rec		03/25/20 3:14	0	4.91	23	9.04	9.02	5000	5011.7	15.73	3/19/2020 9:30:00 AM	3/20/2020 1:40:00 PM	20.1
19	L57215-08DUP	NONE	As Rec		03/25/20 11:25	0	4.91	23	9.01	8.97	5000	5020.2	11.16	3/19/2020 9:30:00 AM	3/20/2020 2:00:00 PM	20.3
20	WG493948LFB1	I200302-4	As Rec		03/25/20 19:37		4.91	23	6.16	6.12	0	5005.2		3/19/2020 9:30:00 AM	3/20/2020 9:40:00 AM	20.7
21	WG493948LFB2	MS200120-3	As Rec		03/26/20 3:48		4.91	23	6.16	6.12	0	5005.2		3/19/2020 9:30:00 AM	3/20/2020 9:40:00 AM	20.7
22	WG493948CCV2	PCN58541	As Rec		03/26/20 12:00		3.98		4.01	3.97						20.9

Report Comments:

Internal Comments

AREV: GKH 3/26/20 Initials, Date

SREV: ALA 3-31-20 Initials, Date

Meteoric Water Mobility

WG493948



Instrument ID: SOILSPREP
Analyst: GKH
ACZ Dept: 20
Create Date: 03/19/2020 15:00
Start Date/Time: 03/19/2020 8:00
End Date/Time: 03/26/2020 12:00

QC List Type: I-X-MWME
QCListMatClass: SOLID
Bench Sheet List: I-RFA-CN-FREE
QC Ref: CSTD3X-PBS-LFB-MSX2
Group ID: SP-G-MWMT
Method Ref: ASTM E2242-13
SOP Ref: SOPSO036

Sample	Login Comments
L57215-01	BUCKET Soils hallway
L57215-02	BUCKET Soils hallway
L57215-03	BUCKET Soils hallway
L57215-04	BUCKET Soils hallway
L57215-05	BUCKET Soils hallway
L57215-06	BUCKET Soils hallway
L57215-07	BUCKET Soils hallway
L57215-08	BUCKET(2) Soils hallway
L57215-08MS1	ICPMS Spike
L57215-08MS2	ICP Spike
L57215-08MSD1	ICPMS Spike
L57215-08MSD2	ICP Spike
WG493948CCV1	pH QC
WG493948CSTD1	pH QC
WG493948CSTD2	pH QC
WG493948CSTD3	pH QC
WG493948ICV	pH QC
WG493948LFB1	ICP LFB
WG493948LFB2	ICPMS LFB

Report Comments:

Internal Comments:

AREV: Initials, Date

SREV: Initials, Date

3/26/2020 1:59:00 PM 22620

ACZ Laboratories, Inc.
Geochemistry Department
Data Review and Reagents

Data Reviewer: GKH

Date: 3/26/20

Approved: CEA

Date: 3-31-20

Analyst: GKH

Workgroup: ~~WG444~~ WG443948

GKH 3/26/20

Analysis Date: 3/19/20 - 3/26/20

Sample type used: SO

(Extraction) Digestion / Analysis / (Prep) Calc:

	Yes	No	N/A
1. Is the raw data checked to the computer printout for transcription errors?	✓		
2. Is the %solid or TS attached for dilution factors?			✓
3. Were proper volumes of reagents used per final volume?			✓
4. Was the proper sub-sample used (as received) client prep, <2000, <500, <250, dry, R&P, RPLL)?	✓		
5. Were the dilution factor calculation checked (final volume, weight, %solid)?			✓
6. Did the RPD pass?			✓
7. Does all the spike information correlate with each other?	✓		
8. Is the appropriate spike in the computer-designated line?	✓		
9. Are all errors properly corrected (single-line crossout, dated & initialed)?	✓		
10. Is the standard/reagent information complete and current?	✓		
11. Is your instrument calibration passing (and included in the data package if needed)?	✓		
FOR SREV: QA/QC approval for initial training or 2 sets of initials for WG & LIMS?	✓		

Standard/Reagent/Equipment*	PCN/SCN/LOT #*	Expiration Date
BUFFER 10	58541	3/31/21
↓ 7	60476	7/31/21
↓ 2	58293	12/31/20

*Workgroup documentation must include the lot number(s) of all disposable vessels used for volumetric measurements.

Comments: _____

METEORIC WATER MOBILITY TEST

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487

Analyst: GKH
Date: _____
Start Time: 3/19/20 8a
End Time: 3/25/20 12p

Workgroup Number: wg493948

Feed Moisture

Sx Number	Pan Weight (g)	Wet Sx + Pan Weight (g)	Dry Sx + Pan Weight (g)	% Solid	% Feed Moisture
L57215-01	141.46	642.42	621.81	95.88589907	4.114100926
L57215-02	151.3	664.61	653.18	97.77327541	2.226724591
L57215-03	160.85	683.93	675.85	98.4553032	1.544696796
L57215-04	150.62	670.92	666.96	99.23890063	0.761099366
L57215-05	137.25	642.59	629.54	97.41758024	2.582419757
L57215-06	146.52	655.34	644.01	97.77327935	2.226720648
L57215-07	151.5	655.16	646.34	98.24881865	1.751181352
L57215-08	145.42	647.9	628.01	96.0416335	3.958366502
L57215-08 DUP	148.86	652.35	632.36	96.02971261	3.970287394

Screening-Particle Size

Sx Number	Sx Weight (g)	Sx > 5 cm (g)	Sx < 5 cm (g)	%Sx > 5cm	%Sx < 5cm
L57215-01	5215	0	5215	0	100
L57215-02	5114	0	5114	0	100
L57215-03	5079	0	5079	0	100
L57215-04	5039	0	5039	0	100
L57215-05	5133	0	5133	0	100
L57215-06	5114	0	5114	0	100
L57215-07	5090	0	5090	0	100
L57215-08	5207	0	5207	0	100
L57215-08 DUP	5207	0	5207	0	100

Residual Moisture

Sx Number	Pan Weight (g)	Wet Sx + Pan Weight (g)	Dry Sx + Pan Weight (g)	% Solid	% Res. Moisture
L57215-01	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-02	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-03	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-04	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-05	73.22	369.03	342.8	91.13282174	8.867178256
L57215-06	73.19	359.91	330.51	89.74609375	10.25390625
L57215-07	73.97	409.91	365.4	86.75061023	13.24938977
L57215-08	75.55	371.62	325.05	84.27061168	15.72938832
L57215-08 DUP	73.34	351.78	320.72	88.84499354	11.15500646

Time and Temperature for Residual Moisture: 24HR @105C

Sample Description: Sand/Fine sand/ Small-Mid sized aggregates

Centrifuge or pre-filter? Centrifuge L57215-01/02/03

Observation of changes: N/A

Storage Conditions of "as rec" sample: Room

METEORIC WATER MOBILITY TEST

ACZ Laboratories, Inc.

2773 Downhill Drive
Steamboat Springs, CO 80487

Workgroup Number: Wg493948

Analyst: **GKH**

Date:

Start Time: **3/19/20 8a**

End Time: **3/25/20 12p**

Loaded Sample Wet Weight

Sx Number	Sx Wet Weight (g)
L57215-01	5215
L57215-02	5114
L57215-03	5079
L57215-04	5039
L57215-05	5133
L57215-06	5114
L57215-07	5090
L57215-08	5207
L57215-08 DUP	5207

H2O rate start: 3.5mL/Min

H2O rate finish: 3.5mL/Min

Filter Type/pore size: .45um

Special Comments:

Dry Weight Calculations

Sx Number	Sx Weight (g) (From above)	(x)	% Solid	=	Dry Sx Weight (g)	+	Cubetainer Weight (g)	=	Target Leachate & Cubtainer Wt (g)
L57215-01	5215	x	0.958858991	=	5000.449637	+	140.7	=	5141.14964
L57215-02	5114	x	0.977732754	=	5000.125304	+	138.3	=	5138.4253
L57215-03	5079	x	0.984553032	=	5000.54485	+	137.4	=	5137.94485
L57215-04	5039	x	0.992389006	=	5000.648203	+	138.1	=	5138.7482
L57215-05	5133	x	0.974175802	=	5000.444394	+	137.8	=	5138.24439
L57215-06	5114	x	0.977732794	=	5000.125506	+	139.9	=	5140.02551
L57215-07	5090	x	0.982488186	=	5000.864869	+	137.6	=	5138.46487
L57215-08	5207	x	0.960416335	=	5000.887856	+	134.2	=	5135.08786
L57215-08 DUP	5207	x	0.960297126	=	5000.267135	+	138.2	=	5138.46714

Final Leachate Weight

Sx Number	Actual Leachate & Cubetainer	-	Cubetainer Wt (g)	=	Final Leachate Volume (mL)
L57215-01	3172.1	-	140.7	=	3031.4
L57215-02	2000.9	-	138.3	=	1862.6
L57215-03	1080.7	-	137.4	=	943.3
L57215-04	464	-	138.1	=	325.9
L57215-05	5149.8	-	137.8	=	5012
L57215-06	5144.7	-	139.9	=	5004.8
L57215-07	5139.1	-	137.6	=	5001.5
L57215-08	5145.9	-	134.2	=	5011.7
L57215-08 DUP	5158.4	-	138.2	=	5020.2

Comments: L7215-01-04:Failed Column Extractions. Sample was extracted for 8 hours via MWMT roll using proper cacula
Calculations can be found on WG benchsheet .

L57215-01: 4547.2 is the total leachate vol. L57215-02: 4888.4 is the total leachate vol.

L57215-03: 4777.9 is the total leachate vol. L57215-04: 3970.6 is the total leachate vol.

Qualtrax ID: 1220

Page 217 of 251
Revision: 2

Meteoritic Water Mobility

QC List Type: I-X-MWME
 QCListMatClass: SOLID
 Bench Sheet List: I-RFA-CN-FREE
 QC Ref: CSTD3X-PBS-LFB-MSX2
 Group ID: SP-G-MWMT
 Method Ref: ASTM E2242-13
 SOP Ref: SOPSQ036

WG493948



ACZ Laboratories, Inc

Instrument ID: SOILSPREP

Analyst:

ACZ Dept: 20

Create Date: 03/19/2020 15:00

Start Date/Time:

End Date/Time:

SE Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Particle Size over 5 cm (%)	Extraction pH	Extraction Temperature (C)	Pre Filter pH	Post Filter pH	Dry Weight	Leachate Volume (mL)	Retained Moisture (%)	Time In	Time Out	Extraction Time (hrs)	Temperature (C)
1	WG493948CSTD1	NONE					10.04		10.03								21.1
2	WG493948CSTD2	NONE					7.01		7.03								21.0
3	WG493948CSTD3	NONE					2.04		2.04								20.9
4	WG493948ICV	PCN58541					3.92		3.96	4.01							21.2
5	WG493948PBS	NONE					4.91		6.16	6.12							20.7
6	L57215-01	WRSB206_145-155							8.76	8.67							20.2
7	L57215-02	WRSB206_175-182							8.89	8.76							20.1
8	L57215-03	WRSB206_187-192							8.83	8.78							20.1
9	L57215-04	WRSB206_197-202							8.42	8.46							20.0
10	L57215-05	WRSB207_0.5-3							8.17	8.33							20.1
11	L57215-06	WRSB207_6-15							8.19	8.23							20.9
12	L57215-07	WRSB207_25-35							8.23	8.30							20.0
13	L57215-08	WRSB207_65-75							9.04	9.02							20.1
14	L57215-08MS1	MS200120-3															↓
15	L57215-08MSD1	MS200120-3															↓
16	L57215-08MS2	IL200302-4															↓
17	WG493948CCV1	PCN58541							4.02	3.99							20.5
18	L57215-08MSD2	IL200302-4							9.04	9.02							20.1
19	L57215-08DUP	NONE							9.01	8.97							20.3
20	WG493948LFB1	IL200302-4							6.16	6.12							20.7
21	WG493948LFB2	MS200120-3															↓
22	WG493948CCV2	PCN58541							4.01	3.97							20.9

Report Comments:

AREV:

Initials, Date

Internal Comments

SREV:

Initials, Date

WG493948

ACZ Laboratories, Inc

QC List Type: I-X-MWME

QCListMatClass: SOLID

Bench Sheet List: I-RFA-CN-FREE

QC Ref: CSTD3X-PBS-LFB-MSX2

Group ID: SP-G-MWMT

Method Ref: ASTM E2242-13

SOP Ref: SOPS0036

Instrument ID: SOILSPREP

Analyst:

ACZ Dept: 20

Create Date: 03/19/2020 15:00

Start Date/Time:

End Date/Time:

Sample	Login Comments	LEACHATE	RETAINED	LEXIVANT
L57215-01	BUCKET Soils hallway			
L57215-02	BUCKET Soils hallway			
L57215-03	BUCKET Soils hallway			
L57215-04	BUCKET Soils hallway			
L57215-05	BUCKET Soils hallway			
L57215-06	BUCKET Soils hallway			
L57215-07	BUCKET Soils hallway			
L57215-08	BUCKET(2) Soils hallway			
L57215-08MS1	ICPMS Spike			
L57215-08MS2	ICP Spike	3031.4	1093.6	875
L57215-08MSD1	ICPMS Spike			
L57215-08MSD2	ICP Spike			
WG493948CCV1	pH QC	1862.6	2964.2	173.2
WG493948CSTD1	pH QC			
WG493948CSTD2	pH QC			
WG493948CSTD3	pH QC			
WG493948ICV	pH QC	943.3	3861.6	195.1
WG493948LFB1	ICP LFB			
WG493948LFB2	ICPMS LFB	325.9	3832.2	842.1

Report Comments:

AREV:

Initials, Date

Internal Comments

SREV:

Initials, Date

WG493948

Date Reported: 31-Mar-20
 Run ID: R1775685
 Date Analyzed: 20-Mar-20
 ICAL Workgroup:
 Instrument ID: SOILSPREP

WG493948ICV		Tag:		Measured: 3/20/2020 8:34:18 AM								
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			3.92		
SREV	POST FILTER PH	TEXT		1		units	NEED			4.01		
SREV	PRE FILTER PH	TEXT		1		units	NEED			3.96		
SREV	TEMPERATURE	PREP	21.2	1		C	NEED	0.1	0.1			

WG493948PBS		Tag:		Measured: 3/20/2020 4:45:44 PM								
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	36666666661	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5005.2	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			6.12		
SREV	PRE FILTER PH	TEXT		1		units	++			6.16		
SREV	TEMPERATURE	PREP	20.7	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

L57215-01		Tag:		Measured: 3/21/2020 12:57:10 AM								
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	56	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	4547.2	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			8.67		
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.76		
SREV	TEMPERATURE	WVMT-96	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

L57215-02

Tag:

Measured: 3/21/2020 9:08:36 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	56	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	4888.4	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			8.76		
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.89		
SREV	TEMPERATURE	WVMT-96	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

L57215-03

Tag:

Measured: 3/21/2020 5:20:02 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	56	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	4777.9	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			8.78		
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.83		
SREV	TEMPERATURE	WVMT-96	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

L57215-04

Tag:

Measured: 3/22/2020 1:31:28 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	56	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	3970.6	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			8.46		
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.42		
SREV	TEMPERATURE	WVMT-96	20.0	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

L57215-05

Tag:

Measured: 3/22/2020 9:42:54 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			4.91	TA	
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1		TA	
SREV	EXTRACTION TIME	WVMT-96	27.58333	1		hrs	++				TA	
SREV	LEACHATE VOLUME	WVMT-96	5012	1		mL	++				TA	
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++				TA	
SREV	POST FILTER PH	WVMT-96		1		units	++			8.33	TA	
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.17	TA	
SREV	RETAINED MOISTURE	WVMT-96		1		%	++			8.87	TA	
SREV	TEMPERATURE	WVMT-96	20.1	1		C	++	0.1	0.1		TA	
SREV	TIME IN	WVMT-96		1			++				TA	
SREV	TIME OUT	WVMT-96		1			++				TA	
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++				TA	

L57215-06

Tag:

Measured: 3/22/2020 5:54:20 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	27.41667	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	5004.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			8.23		
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.19		
SREV	RETAINED MOISTURE	WVMT-96		1		%	++			10.25		
SREV	TEMPERATURE	WVMT-96	20.9	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

L57215-07

Tag:

Measured: 3/23/2020 2:05:46 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			4.91	TA	
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1		TA	
SREV	EXTRACTION TIME	WVMT-96	29	1		hrs	++				TA	
SREV	LEACHATE VOLUME	WVMT-96	5001.5	1		mL	++				TA	
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++				TA	
SREV	POST FILTER PH	WVMT-96		1		units	++			8.3	TA	
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.22	TA	
SREV	RETAINED MOISTURE	WVMT-96		1		%	++			13.25	TA	
SREV	TEMPERATURE	WVMT-96	20.0	1		C	++	0.1	0.1		TA	
SREV	TIME IN	WVMT-96		1			++				TA	
SREV	TIME OUT	WVMT-96		1			++				TA	
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++				TA	

L57215-08

Tag:

Measured: 3/23/2020 10:17:12 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	28.16667	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			9.02		
SREV	PRE FILTER PH	WMT-96		1		units	++			9.04		
SREV	RETAINED MOISTURE	WMT-96		1		%	++			15.73		
SREV	TEMPERATURE	WMT-96	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

L57215-08MS1

Tag:

Measured: 3/23/2020 6:28:38 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP3666666279		1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			9.02		
SREV	PRE FILTER PH	TEXT		1		units	++			9.04		
SREV	RETAINED MOISTURE	TEXT		1		%	++			15.73		
SREV	TEMPERATURE	PREP	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-08MSD1

Tag:

Measured: 3/24/2020 2:40:04 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP3666666279		1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			9.02		
SREV	PRE FILTER PH	TEXT		1		units	++			9.04		
SREV	RETAINED MOISTURE	TEXT		1		%	++			15.73		
SREV	TEMPERATURE	PREP	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-08MS2

Tag:

Measured: 3/24/2020 10:51:30 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666279	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			9.02		
SREV	PRE FILTER PH	TEXT		1		units	++			9.04		
SREV	RETAINED MOISTURE	TEXT		1		%	++			15.73		
SREV	TEMPERATURE	PREP	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

WG493948CCV1

Tag:

Measured: 3/24/2020 7:02:56 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			3.98		
SREV	POST FILTER PH	TEXT		1		units	NEED			3.99		
SREV	PRE FILTER PH	TEXT		1		units	NEED			4.02		
SREV	TEMPERATURE	PREP	20.5	1		C	NEED	0.1	0.1			

L57215-08MSD2

Tag:

Measured: 3/25/2020 3:14:22 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666279	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5011.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			9.02		
SREV	PRE FILTER PH	TEXT		1		units	++			9.04		
SREV	RETAINED MOISTURE	TEXT		1		%	++			15.73		
SREV	TEMPERATURE	PREP	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-08DUP

Tag:

Measured: 3/25/2020 11:25:48 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	28.5	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5020.2	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			8.97		
SREV	PRE FILTER PH	TEXT		1		units	++			9.01		
SREV	RETAINED MOISTURE	TEXT		1		%	++			11.16		
SREV	TEMPERATURE	PREP	20.3	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

WG493948LFB1

Tag:

Measured: 3/25/2020 7:37:14 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	36666666861	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5005.2	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			6.12		
SREV	PRE FILTER PH	TEXT		1		units	++			6.16		
SREV	TEMPERATURE	PREP	20.7	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

WG493948LFB2

Tag:

Measured: 3/26/2020 3:48:40 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			4.91		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	36666666861	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5005.2	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			6.12		
SREV	PRE FILTER PH	TEXT		1		units	++			6.16		
SREV	TEMPERATURE	PREP	20.7	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

WG493948CCV2

Tag:

Measured: 3/26/2020 12:00:06 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			3.98		
SREV	POST FILTER PH	TEXT		1		units	NEED			3.97		
SREV	PRE FILTER PH	TEXT		1		units	NEED			4.01		
SREV	TEMPERATURE	PREP	20.9	1		C	NEED	0.1	0.1			

Meteoric Water Mobility

QC List Type: I-X-MWME
 QCListMatClass: SOLID
 Bench Sheet List: I-RFA-CN-FREE
 QC Ref: CSTD3X-PBS-LFB-MSX2
 Group ID: SP-G-MWMT
 Method Ref: ASTM E2242-13
 SOP Ref: SOPSO036

WG493997



ACZ Laboratories, Inc

Instrument ID: SOILSPREP

Analyst: GKH

ACZ Dept: 20

Create Date: 03/20/2020 9:59

Start Date/Time: 03/24/2020 8:00

End Date/Time: 03/27/2020 16:00

SE Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Particle Size over 5 cm (%)	Extracti on pH (units)	Extracti on Temperature (C)	Pre Filter pH (units)	Post Filter pH (units)	Dry Weight (g)	Leachate Volume (mL)	Retained Moisture (%)	Time In	Time Out	Extracti on Time (hrs)	Temperature (C)
1	WG493997CSTD1	NONE	As Rec		03/24/20 8:00		10.04		10.06	10.06							21.6
2	WG493997CSTD2	NONE	As Rec		03/24/20 11:48		7.01		7.02	7.02							21.6
3	WG493997CSTD3	NONE	As Rec		03/24/20 15:37		2.04		2.09	2.09							21.6
4	WG493997ICV	PCN58541	As Rec		03/24/20 19:25		3.95		4.01	3.98							21.6
5	WG493997PBS	NONE	As Rec		03/24/20 23:14		5.01	23	5.67	5.87	0	5003.9		3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	24.166666666666667	22.1
6	L57215-09	WRSB207_105-115	As Rec		03/25/20 3:02	0	5.01	23	9.03	9.05	5000	5001.7	18.26	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	30.999999999999994	21.1
7	L57215-10	WRSB207_125-135	As Rec		03/25/20 6:51	0	5.01	23	9.07	8.99	5000	4925.7		3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	55.999999999999998	20.3
8	L57215-11	WRSB207_140-145	As Rec		03/25/20 10:39	0	5.01	23	9.15	8.98	5000	5059.2		3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	55.999999999999998	20.1
9	L57215-12	WRSB207_150-155	As Rec		03/25/20 14:28	0	5.01	23	8.85	8.93	5000	4967.6	18.40	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	48	20.4
10	L57215-13	WRSB234_0.5-3	As Rec		03/25/20 18:17	0	5.01	23	7.76	7.84	5000	5006.6	19.25	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	28.833333333333332	20.2
11	L57215-13MS1	MS200120-3	As Rec		03/25/20 22:05	0	5.01	23	7.76	7.84	5000	5006.6	19.25	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	28.833333333333332	20.2
12	L57215-13MSD1	MS200120-3	As Rec		03/26/20 1:54	0	5.01	23	7.76	7.84	5000	5006.6	19.25	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	28.833333333333332	20.2
13	L57215-13MSD2	I200302-4	As Rec		03/26/20 5:42	0	5.01	23	7.76	7.84	5000	5006.6	19.25	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	28.833333333333332	20.2
14	L57215-13MSD2	I200302-4	As Rec		03/26/20 9:31	0	5.01	23	7.76	7.84	5000	5006.6	19.25	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	28.833333333333332	20.2
15	L57215-13DUP	NONE	As Rec		03/26/20 13:19	19.41	5.01	23	8.27	8.36	5000	5016.1	14.61	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	26.166666666666664	20.2
16	L57215-14	WRSB234_6-15	As Rec		03/26/20 17:08	15.19	5.01	23	8.33	8.35	5000	5018.7	12.81	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	28.5	20.4
17	L57215-15	WRSB223_0.5-3	As Rec		03/26/20 20:57	14.47	5.01	23	8.09	8.09	5000	5003.7	10.66	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	26.083333333333331	20.6
18	WG493997CCV1	PCN58541	As Rec		03/27/20 0:45		4.03		3.99	3.98							21.2
19	L57215-16	WRSB223_6-15	As Rec		03/27/20 4:34	0	5.01	23	7.93	7.84	5000	5024.3	11.37	3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	29.916666666666667	20.6
20	WG493997LFB1	I200302-4	As Rec		03/27/20 8:22		5.01	23	5.67	5.87	0	5003.9		3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	24.166666666666664	22.1
21	WG493997LFB2	MS200120-3	As Rec		03/27/20 12:11		5.01	23	5.67	5.87	0	5003.9		3/24/2020 9:40:00 AM	3/25/2020 9:50:00 AM	24.166666666666664	22.1
22	WG493997CCV2	PCN58541	As Rec		03/27/20 15:59		4.02		3.99	3.98							21.2

Report Comments:

Internal Comments

AREV:

GKH 3/30/20
Initials, Date

SREV:

CLA 4-2-20
Initials, Date

Meteoritic Water Mobility

QC List Type: I-X-MWME
QCListMatClass: SOLID
Bench Sheet List: I-RFA-CN-FREE
QC Ref: CSTD3X-PBS-LFB-MSX2
Group ID: SP-G-MWMT
Method Ref: ASTM E2242-13
SOP Ref: SOPSO036

ACZ Laboratories, Inc

Instrument ID: SOILSPREP

Analyst: GKH

ACZ Dept: 20

Create Date: 03/20/2020 9:59

Start Date/Time: 03/24/2020 8:00

End Date/Time: 03/27/2020 16:00

WG493997



Sample Login Comments

L57215-09	BUCKET Soils hallway
L57215-10	BUCKET Soils hallway
L57215-11	BUCKET Soils hallway
L57215-12	BUCKET Soils hallway
L57215-13	BUCKET(2) Soils hallway
L57215-13MS1	ICPMS Spike
L57215-13MS2	ICP Spike
L57215-13MSD1	ICPMS Spike
L57215-13MSD2	ICP Spike
L57215-14	BUCKET Soils hallway
L57215-15	BUCKET Soils hallway
L57215-16	BUCKET Soils hallway
WG493997CCV1	pH QC
WG493997CSTD1	pH QC
WG493997CSTD2	pH QC
WG493997CSTD3	pH QC
WG493997ICV	pH QC
WG493997LFB1	ICP LFB
WG493997LFB2	ICPMS LFB

Report Comments:

Internal Comments

AREV:

Initials, Date

SREV:

Initials, Date

ACZ Laboratories, Inc.
Geochemistry Department
Data Review and Reagents

Data Reviewer: GKH

Date: 3/30/20

Approved: GKH

Date: 4-2-20

Analyst: GKH

Workgroup: WG493997

Analysis Date: 3/24/20 - 3/27/20

Sample type used: SO

Extraction / Digestion / Analysis / Prep / Calc:

	Yes	No	N/A
1. Is the raw data checked to the computer printout for transcription errors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the %solid or TS attached for dilution factors?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Were proper volumes of reagents used per final volume?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Was the proper sub-sample used (as received, client prep, <2000, <500, <250, dry, R&P, RPLL)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were the dilution factor calculation checked (final volume, weight, %solid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Did the RPD pass?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Does all the spike information correlate with each other?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Is the appropriate spike in the computer-designated line?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Are all errors properly corrected (single-line crossout, dated & initialed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is the standard/reagent information complete and current?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Is your instrument calibration passing (and included in the data package if needed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FOR SREV: QA/QC approval for initial training or 2 sets of initials for WG & LIMS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Standard/Reagent/Equipment*	PCN/SCN/LOT #*	Expiration Date
BUFFER 10	59339	3/31/21
✓ 7	60496	7/31/21
✓ 2	58293	12/31/20
*Workgroup documentation must include the lot number(s) of all disposable vessels used for volumetric measurements.		

Comments: _____

METEORIC WATER MOBILITY TEST

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487

Analyst: GKH
Date: _____
Start Time: 3/24/20 8a
End Time: 3/27/20 4p

Workgroup Number: Wg493997

Loaded Sample Wet Weight

Sx Number	Sx Wet Weight (g)
L57215-09	5203
L57215-10	5163
L57215-11	5146
L57215-12	5199
L57215-13	5225
L57215-13 DUP	5262
L57215-14	5160
L57215-15	5158
L57215-16	5254

H2O rate start: 3.5mL/Min
H2O rate finish: 3.5mL/Min

Filter Type/pore size: .45um

Special Comments:

L57215-13 and its duplicate bucket (MS/MSD) were different material. The duplicate bucket has much larger aggregates that were over 5cm where as the L57215-13 bucket didn't have any material over 5cm.

Dry Weight Calculations

Sx Number	Sx Weight (g) (From above)	(x)	% Solid	=	Dry Sx Weight (g)	+	Cubetainer Weight (g)	=	Target Leachate & Cubtainer Wt (g)
L57215-09	5203	x	0.961082202	=	5000.510696	+	137.6	=	5138.1107
L57215-10	5163	x	0.968469188	=	5000.206418	+	138.6	=	5138.80642
L57215-11	5146	x	0.971683407	=	5000.282811	+	138.2	=	5138.48281
L57215-12	5199	x	0.96182908	=	5000.549388	+	136.9	=	5137.44939
L57215-13	5225	x	0.956950902	=	5000.068465	+	142	=	5142.06846
L57215-13 DUP	5262	x	0.950337313	=	5000.674941	+	136.8	=	5137.47494
L57215-14	5160	x	0.969159347	=	5000.862228	+	142.5	=	5143.36223
L57215-15	5158	x	0.969532422	=	5000.848235	+	132.1	=	5132.94823
L57215-16	5254	x	0.9516867	=	5000.161923	+	137.6	=	5137.76192

Final Leachate Weight

Sx Number	Actual Leachate & Cubetainer	-	Cubetainer Wt (g)	=	Final Leachate Volume (mL)
L57215-09	5139.3	-	137.6	=	5001.7
L57215-10	1834.6	-	138.6	=	1696
L57215-11	2275.3	-	138.2	=	2137.1
L57215-12	5104.5	-	136.9	=	4967.6
L57215-13	5148.6	-	142	=	5006.6
L57215-13 DUP	5152.9	-	136.8	=	5016.1
L57215-14	5161.2	-	142.5	=	5018.7
L57215-15	5135.8	-	132.1	=	5003.7
L57215-16	5161.9	-	137.6	=	5024.3

Comments: L7215-01/11: Failed Column Extraction. Sample was extracted for 8 hours via MWMT roll using proper caculat
Calculations can be found on WG benchesheet .

L57215-10: 4925.7 mL is the total Leachate from MWMT Column and Extraction Fluid from MWMT Roll

L57215-11: 5059.2 mL is the total Leachate from MWMT Column and Extraction Fluid from MWMT Roll

METEORIC WATER MOBILITY TEST

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487

Analyst: GKH
Date: _____
Start Time: 3/24/20 8a
End Time: 3/27/20 4p

Workgroup Number: WG493997

Feed Moisture

Sx Number	Pan Weight (g)	Wet Sx + Pan Weight (g)	Dry Sx + Pan Weight (g)	% Solid	% Feed Moisture
L57215-09	160.78	662.35	642.83	96.10822019	3.891779811
L57215-10	137.24	638.02	622.23	96.84691881	3.153081193
L57215-11	141.44	648.21	633.86	97.16834067	2.831659333
L57215-12	151.29	663.46	643.91	96.18290802	3.817091981
L57215-13	150.58	658.14	636.29	95.69509024	4.304909764
L57215-13 DUP	148.83	657.26	632.01	95.03373129	4.96626871
L57215-14	145.39	664.51	648.5	96.91593466	3.084065341
L57215-15	151.45	657.89	642.46	96.95324224	3.04675776
L57215-16	146.49	662.29	637.37	95.16867003	4.831329973

Screening-Particle Size

Sx Number	Sx Weight (g)	Sx > 5 cm (g)	Sx < 5 cm (g)	%Sx > 5cm	%Sx < 5cm
L57215-09	5203	0	5203	0	100
L57215-10	5163	0	5163	0	100
L57215-11	5146	0	5146	0	100
L57215-12	5199	0	5199	0	100
L57215-13	5225	0	5225	0	100
L57215-13 DUP	8887.76	1725.29	7162.47	19.41197782	80.58802218
L57215-14	9790.65	1487.53	8303.12	15.19337327	84.80662673
L57215-15	6920.19	1001.61	5918.58	14.47373555	85.52626445
L57215-16	5254	0	5254	0	100

Residual Moisture

Sx Number	Pan Weight (g)	Wet Sx + Pan Weight (g)	Dry Sx + Pan Weight (g)	% Solid	% Res. Moisture
L57215-09	77.54	382.19	326.55	81.73641884	18.26358116
L57215-10	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-11	N/A	N/A	N/A	#VALUE!	#VALUE!
L57215-12	72.87	367.38	313.18	81.5965502	18.4034498
L57215-13	72.26	361.43	305.75	80.74489055	19.25510945
L57215-13 DUP	73.98	306.27	272.33	85.38895346	14.61104654
L57215-14	73.32	405.21	362.69	87.18852632	12.81147368
L57215-15	72.55	351.41	321.67	89.33515025	10.66484975
L57215-16	76.43	305.85	279.76	88.62784413	11.37215587

Time and Temperature for Residual Moisture: 24HR @105c

Sample Description: Sand/ Small-Mid sized aggregate

Centrifuge or pre-filter? Centrifuge L57215-10/11

Observation of changes: N/A

Storage Conditions of "as rec" sample: Room

ACZ Laboratories, Inc.

Instrument ID: SOILSPREP

Analyst:

ACZ Dept: 20

Create Date: 03/20/2020 9:59

Start Date/Time:

End Date/Time:

End Date/Time:

WG493997

Report Comments:

Internal Comments

AREV:

Initials, Date

SREV:

Initials, Date

3/20/2020 10:00:03 AM

22620

Page 1 of 2

Meteoritic Water Mobility

QC List Type: I-X-MWME
 QCListMatClass: SOLID
 Bench Sheet List: I-RFA-CN-FREE
 QC Ref: CSTD3X-PBS-LFB-MSX2
 Group ID: SP-G-MWMT
 Method Ref: ASTM E2242-13
 SOP Ref: SOPSO036

ACZ Laboratories, Inc

Instrument ID: SOILSPREP
 Analyst:
 ACZ Dept: 20
 Create Date: 03/20/2020 9:59
 Start Date/Time:
 End Date/Time:

WG493997



Sample	Login Comments
L57215-09	BUCKET II Soils hallway
L57215-10	BUCKET II Soils hallway
L57215-11	BUCKET II Soils hallway
L57215-12	BUCKET II Soils hallway
L57215-13	BUCKET(2) II Soils hallway
L57215-13MS1	ICPMS Spike
L57215-13MS2	ICP Spike
L57215-13MSD1	ICPMS Spike
L57215-13MSD2	ICP Spike
L57215-14	BUCKET II Soils hallway
L57215-15	BUCKET II Soils hallway
L57215-16	BUCKET II Soils hallway
WG493997CCV1	pH QC
WG493997CSTD1	pH QC
WG493997CSTD2	pH QC
WG493997CSTD3	pH QC
WG493997ICV	pH QC
WG493997LFB1	ICP LFB
WG493997LFB2	ICPMS LFB

LEACHATE
 L57215-10 ^{6/11/20} 183 1696
 L57215-11 2137.1
 RETAINED
 3211.1
 2802
 LEXIVANT
 92.9
 60.9

Report Comments:

Internal Comments

AREV: _____
 SREV: _____

Initials, Date
 Initials, Date

WG493997

Date Reported: 02-Apr-20
Run ID: R1775939
Date Analyzed: 24-Mar-20
ICAL Workgroup:
Instrument ID: SOILSPREP

WG493997ICV

Tag:

Measured: 3/24/2020 7:25:42 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			3.95		
SREV	POST FILTER PH	TEXT		1		units	NEED			3.98		
SREV	PRE FILTER PH	TEXT		1		units	NEED			4.01		
SREV	TEMPERATURE	PREP	21.6	1		C	NEED	0.1	0.1			

WG493997PBS

Tag:

Measured: 3/24/2020 11:14:16 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666665114	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5003.9	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			5.87		
SREV	PRE FILTER PH	TEXT		1		units	++			5.67		
SREV	TEMPERATURE	PREP	22.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

L57215-09

Tag:

Measured: 3/25/2020 3:02:50 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	'K-MWMT		1		units	++			5.01	TA	
SREV	EXTRACTION TEMPERATURE	'K-MWMT	23.0	1		C	++	0.1	0.1		TA	
SREV	EXTRACTION TIME	'K-MWMT	31	1		hrs	++				TA	
SREV	LEACHATE VOLUME	'K-MWMT	5001.7	1		mL	++				TA	
SREV	PARTICLE SIZE OVER 5 CM	'K-MWMT	0	1		%	++				TA	
SREV	POST FILTER PH	'K-MWMT		1		units	++			9.05	TA	
SREV	PRE FILTER PH	'K-MWMT		1		units	++			9.03	TA	
SREV	RETAINED MOISTURE	'K-MWMT		1		%	++			18.26	TA	
SREV	TEMPERATURE	'K-MWMT	21.1	1		C	++	0.1	0.1		TA	
SREV	TIME IN	'K-MWMT		1			++				TA	
SREV	TIME OUT	'K-MWMT		1			++				TA	
SREV	WEIGHT, DRY	'K-MWMT	5000	1		g	++				TA	

L57215-10

Tag:

Measured: 3/25/2020 6:51:24 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	K-MWMT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	K-MWMT	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	K-MWMT	56	1		hrs	++					
SREV	LEACHATE VOLUME	K-MWMT	4925.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	K-MWMT	0	1		%	++					
SREV	POST FILTER PH	K-MWMT		1		units	++			8.99		
SREV	PRE FILTER PH	K-MWMT		1		units	++			9.07		
SREV	TEMPERATURE	K-MWMT	20.3	1		C	++	0.1	0.1			
SREV	TIME IN	K-MWMT		1			++					
SREV	TIME OUT	K-MWMT		1			++					
SREV	WEIGHT, DRY	K-MWMT	5000	1		g	++					

L57215-11

Tag:

Measured: 3/25/2020 10:39:58 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	K-MWMT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	K-MWMT	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	K-MWMT	56	1		hrs	++					
SREV	LEACHATE VOLUME	K-MWMT	5059.2	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	K-MWMT	0	1		%	++					
SREV	POST FILTER PH	K-MWMT		1		units	++			8.98		
SREV	PRE FILTER PH	K-MWMT		1		units	++			9.15		
SREV	TEMPERATURE	K-MWMT	20.1	1		C	++	0.1	0.1			
SREV	TIME IN	K-MWMT		1			++					
SREV	TIME OUT	K-MWMT		1			++					
SREV	WEIGHT, DRY	K-MWMT	5000	1		g	++					

L57215-12

Tag:

Measured: 3/25/2020 2:28:32 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	K-MWMT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	K-MWMT	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	K-MWMT	48	1		hrs	++					
SREV	LEACHATE VOLUME	K-MWMT	4967.6	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	K-MWMT	0	1		%	++					
SREV	POST FILTER PH	K-MWMT		1		units	++			8.93		
SREV	PRE FILTER PH	K-MWMT		1		units	++			8.85		
SREV	RETAINED MOISTURE	K-MWMT		1		%	++			18.40		
SREV	TEMPERATURE	K-MWMT	20.4	1		C	++	0.1	0.1			
SREV	TIME IN	K-MWMT		1			++					
SREV	TIME OUT	K-MWMT		1			++					
SREV	WEIGHT, DRY	K-MWMT	5000	1		g	++					

L57215-13

Tag:

Measured: 3/25/2020 6:17:06 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	K-MWMT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	K-MWMT	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	K-MWMT	28.83333	1		hrs	++					
SREV	LEACHATE VOLUME	K-MWMT	5006.6	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	K-MWMT	0	1		%	++					
SREV	POST FILTER PH	K-MWMT		1		units	++			7.84		
SREV	PRE FILTER PH	K-MWMT		1		units	++			7.76		
SREV	RETAINED MOISTURE	K-MWMT		1		%	++			19.25		
SREV	TEMPERATURE	K-MWMT	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	K-MWMT		1			++					
SREV	TIME OUT	K-MWMT		1			++					
SREV	WEIGHT, DRY	K-MWMT	5000	1		g	++					

L57215-13MS1

Tag:

Measured: 3/25/2020 10:05:40 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP3333331975		1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5006.6	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			7.84		
SREV	PRE FILTER PH	TEXT		1		units	++			7.76		
SREV	RETAINED MOISTURE	TEXT		1		%	++			19.25		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-13MSD1

Tag:

Measured: 3/26/2020 1:54:14 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP3333331975		1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5006.6	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			7.84		
SREV	PRE FILTER PH	TEXT		1		units	++			7.76		
SREV	RETAINED MOISTURE	TEXT		1		%	++			19.25		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-13MS2

Tag:

Measured: 3/26/2020 5:42:48 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	3333331975	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5006.6	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			7.84		
SREV	PRE FILTER PH	TEXT		1		units	++			7.76		
SREV	RETAINED MOISTURE	TEXT		1		%	++			19.25		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-13MSD2

Tag:

Measured: 3/26/2020 9:31:22 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	3333331975	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5006.6	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	0	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			7.84		
SREV	PRE FILTER PH	TEXT		1		units	++			7.76		
SREV	RETAINED MOISTURE	TEXT		1		%	++			19.25		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-13DUP

Tag:

Measured: 3/26/2020 1:19:56 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	9999999418	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5016.1	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	19.41	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			8.36		
SREV	PRE FILTER PH	TEXT		1		units	++			8.27		
SREV	RETAINED MOISTURE	TEXT		1		%	++			14.61		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-14

Tag:

Measured: 3/26/2020 5:08:30 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	K-MWMT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	K-MWMT	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	K-MWMT	28.5	1		hrs	++					
SREV	LEACHATE VOLUME	K-MWMT	5018.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	K-MWMT	15.19	1		%	++					
SREV	POST FILTER PH	K-MWMT		1		units	++			8.35		
SREV	PRE FILTER PH	K-MWMT		1		units	++			8.33		
SREV	RETAINED MOISTURE	K-MWMT		1		%	++			12.81		
SREV	TEMPERATURE	K-MWMT	20.4	1		C	++	0.1	0.1			
SREV	TIME IN	K-MWMT		1			++					
SREV	TIME OUT	K-MWMT		1			++					
SREV	WEIGHT, DRY	K-MWMT	5000	1		g	++					

L57215-15

Tag:

Measured: 3/26/2020 8:57:04 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	K-MWMT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	K-MWMT	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	K-MWMT	29.08333	1		hrs	++					
SREV	LEACHATE VOLUME	K-MWMT	5003.7	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	K-MWMT	14.47	1		%	++					
SREV	POST FILTER PH	K-MWMT		1		units	++			8.09		
SREV	PRE FILTER PH	K-MWMT		1		units	++			8.09		
SREV	RETAINED MOISTURE	K-MWMT		1		%	++			10.66		
SREV	TEMPERATURE	K-MWMT	20.6	1		C	++	0.1	0.1			
SREV	TIME IN	K-MWMT		1			++					
SREV	TIME OUT	K-MWMT		1			++					
SREV	WEIGHT, DRY	K-MWMT	5000	1		g	++					

WG493997CCV1

Tag:

Measured: 3/27/2020 12:45:38 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			4.03		
SREV	POST FILTER PH	TEXT		1		units	NEED			3.98		
SREV	PRE FILTER PH	TEXT		1		units	NEED			3.99		
SREV	TEMPERATURE	PREP	21.2	1		C	NEED	0.1	0.1			

L57215-16

Tag:

Measured: 3/27/2020 4:34:12 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	K-MWMT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	K-MWMT	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	K-MWMT	29.91667	1		hrs	++					
SREV	LEACHATE VOLUME	K-MWMT	5024.3	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	K-MWMT	0	1		%	++					
SREV	POST FILTER PH	K-MWMT		1		units	++			7.84		
SREV	PRE FILTER PH	K-MWMT		1		units	++			7.93		
SREV	RETAINED MOISTURE	K-MWMT		1		%	++			11.37		
SREV	TEMPERATURE	K-MWMT	20.6	1		C	++	0.1	0.1			
SREV	TIME IN	K-MWMT		1			++					
SREV	TIME OUT	K-MWMT		1			++					
SREV	WEIGHT, DRY	K-MWMT	5000	1		g	++					

WG493997LFB1

Tag:

Measured: 3/27/2020 8:22:46 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666665114	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5003.9	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			5.87		
SREV	PRE FILTER PH	TEXT		1		units	++			5.67		
SREV	TEMPERATURE	PREP	22.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

WG493997LFB2

Tag:

Measured: 3/27/2020 12:11:20 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.01		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666665114	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5003.9	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			5.87		
SREV	PRE FILTER PH	TEXT		1		units	++			5.67		
SREV	TEMPERATURE	PREP	22.1	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

WG493997CCV2

Tag:

Measured: 3/27/2020 3:59:54 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			4.02		
SREV	POST FILTER PH	TEXT		1		units	NEED			3.98		
SREV	PRE FILTER PH	TEXT		1		units	NEED			3.99		
SREV	TEMPERATURE	PREP	21.2	1		C	NEED	0.1	0.1			

Meteoric Water Mobility

QC List Type: I-X-MWME
QCListMatClass: SOLID
Bench Sheet List: I-RFA-CN-FREE
QC Ref: CSTD3X-PBS-LFB-MSX2
Group ID: SP-G-MWMT
Method Ref: ASTM E2242-13
SOP Ref: SOPSO036

WG494001



ACZ Laboratories, Inc

Instrument ID: SOILSPREP
Analyst: GKH
ACZ Dept: 20
Create Date: 03/20/2020 10:11
Start Date/Time: 03/26/2020 10:00
End Date/Time: 03/27/2020 17:00

SE	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Particle Size over 5 cm (%)	Extracti on pH	Extracti on Temperature (C)	Pre Filter pH (units)	Post Filter pH (units)	Dry Weight (g)	Leachat e Volume (mL)	Retaine d Moisture (%)	Time In Out	Extracti on Time	Temper ature
Q																
1	WG494001CSTD1	NONE	As Rec		03/26/20 10:00		10.05		10.06	10.06						21.6
2	WG494001CSTD2	NONE	As Rec		03/26/20 11:28		6.97		6.99	6.99						21.4
3	WG494001CSTD3	NONE	As Rec		03/26/20 12:57		2.07		2.07	2.07						21.4
4	WG494001ICV	PCN58541	As Rec		03/26/20 14:25		3.95		3.99	4.04	0	5012.9				21.8
5	WG494001PBS	NONE	As Rec		03/26/20 15:54		5.06	23	5.33	5.54	5000	5022.8	4.93	3/26/20 11:45:00 AM	24:2500000012	20.4
6	L57215-17	WRSB228_0.5-3	As Rec		03/26/20 17:22	8.97	5.06	23	7.16	7.24	5000	5022.8	4.93	3/26/20 11:30:00 AM	27:168666666666	20.2
7	L57215-17MS1	MS200120-3	As Rec		03/26/20 18:51	8.97	5.06	23	7.16	7.24	5000	5022.8	4.93	3/26/20 11:30:00 AM	27:168666666666	20.2
8	L57215-17MSD1	MS200120-3	As Rec		03/26/20 20:19	8.97	5.06	23	7.16	7.24	5000	5022.8	4.93	3/26/20 11:30:00 AM	27:168666666666	20.2
9	L57215-17MS2	II200302-4	As Rec		03/26/20 21:48	8.97	5.06	23	7.16	7.24	5000	5022.8	4.93	3/26/20 11:30:00 AM	27:168666666666	20.2
10	L57215-17MSD2	II200302-4	As Rec		03/26/20 23:17	8.97	5.06	23	7.16	7.24	5000	5022.8	4.93	3/26/20 11:30:00 AM	27:168666666666	20.2
11	L57215-18	WRSB228-FD_0.5-3	As Rec		03/27/20 0:45	3.12	5.06	23	7.27	7.32	5000	5001	8.55	3/27/20 12:30:00 PM	25:0000000012	20.2
12	L57215-19	WRSB228_6-15	As Rec		03/27/20 2:14	0	5.06	23	7.35	7.41	5000	5003.8	11.92	3/27/20 11:30:00 AM	26:5000000012	20
13	L57215-20	WRSB227_0.5-3	As Rec		03/27/20 3:42	8.8	5.06	23	7.43	7.49	5000	5004.5	10.76	3/27/20 11:30:00 AM	25:916666666666	20
14	L57217-01	WRSB227-FD_0.5-3	As Rec		03/27/20 5:11	8.07	5.06	23	7.76	7.78	5000	5019.8	9.43	3/27/20 11:30:00 AM	27:916666666666	19.7
15	WG494001CCV1	PCN58541	As Rec		03/27/20 6:39		4.02		4.04	4.03						21.2
16	L57217-02	WRSB227_6-15	As Rec		03/27/20 8:08	0	5.06	23	8.36	8.54	5000	5029.8	15.39	3/27/20 11:30:00 AM	26:168666666666	20.2
17	L57217-03	WRSB233_0.5-3	As Rec		03/27/20 9:37	0	5.06	23	8.26	8.11	5000	5012.5	8.62	3/27/20 11:30:00 AM	27:416666666666	20.2
18	L57217-04	WRSB233_6-15	As Rec		03/27/20 11:05	0	5.06	23	8.95	8.92	5000	5003.1	10.08	3/27/20 11:30:00 AM	27:916666666666	20.4
19	L57217-05	WRSB237_0.5-3	As Rec		03/27/20 12:34	2.87	5.06	23	8.52	8.53	5000	5042.3	20.10	3/27/20 11:30:00 AM	26:916666666666	20.3
20	WG494001LFB1	II200302-4	As Rec		03/27/20 14:02		5.06	23	5.33	5.54	0	5012.9		3/27/20 11:45:00 AM	24:2500000012	20.4
21	WG494001LFB2	MS200120-3	As Rec		03/27/20 15:31		5.06	23	5.33	5.54	0	5012.9		3/27/20 11:30:00 AM	24:2500000012	20.4
22	WG494001CCV2	PCN58541	As Rec		03/27/20 16:59		4		4.05	4.03						21.2

Report Comments:

Internal Comments

AREV:

GKH 3/31/20

Initials, Date

SREV:

CRS 4-7-20

Initials, Date

Instrument ID: SOILSPREP
Analyst: GKH
ACZ Dept: 20
Create Date: 03/20/2020 10:11
Start Date/Time: 03/26/2020 10:00
End Date/Time: 03/27/2020 17:00

QC List Type: I-X-MWME
QCListMatClass: SOLID
Bench Sheet List: I-RFA-CN-FREE
QC Ref: CSTD3X-PBS-LFB-MSX2
Group ID: SP-G-MWMT
Method Ref: ASTM E2242-13
SOP Ref: SOPSO036



Sample	Login Comments
L57215-17	BUCKET Soils hallway
L57215-17MS1	ICPMS Spike
L57215-17MS2	ICP Spike
L57215-17MSD1	ICPMS Spike
L57215-17MSD2	ICP Spike
L57215-18	BUCKET Soils hallway
L57215-19	BUCKET Soils hallway
L57215-20	BUCKET Soils hallway
L57217-01	BUCKET Soils hallway
L57217-02	BUCKET Soils hallway
L57217-03	BUCKET Soils hallway
L57217-04	BUCKET Soils hallway
L57217-05	BUCKET Soils hallway
WG494001CCV1	pH QC
WG494001CCV2	pH QC
WG494001CSTD1	pH QC
WG494001CSTD2	pH QC
WG494001CSTD3	pH QC
WG494001ICV	pH QC
WG494001LFB1	ICP LFB
WG494001LFB2	ICPMS LFB

Report Comments: _____

Internal Comments _____

AREV: _____ Initials, Date

SREV: _____ Initials, Date

ACZ Laboratories, Inc.
Geochemistry Department
Data Review and Reagents

Data Reviewer: GKH

Date: 3/31/20

Analyst: GKH

Approved: GKH

Date: 4-7-20

Workgroup: W6494001

Analysis Date: 3/26/20 - 3/27/20

Sample type used: SO

Extraction / Digestion / Analysis / Prep / Calc:

	Yes	No	N/A
1. Is the raw data checked to the computer printout for transcription errors?	✓		
2. Is the %solid or TS attached for dilution factors?			✓
3. Were proper volumes of reagents used per final volume?			✓
4. Was the proper sub-sample used (as received, client prep, <2000, <500, <250, dry, R&P, RPLL)?	✓		
5. Were the dilution factor calculation checked (final volume, weight, %solid)?			✓
6. Did the RPD pass?			✓
7. Does all the spike information correlate with each other?	✓		
8. Is the appropriate spike in the computer-designated line?	✓		
9. Are all errors properly corrected (single-line crossout, dated & initialed)?	✓		
10. Is the standard/reagent information complete and current?	✓		
11. Is your instrument calibration passing (and included in the data package if needed)?	✓		
FOR SREV: QA/QC approval for initial training or 2 sets of initials for WG & LIMS?	✓		

Standard/Reagent/Equipment*	PCN/SCN/LOT #*	Expiration Date
BUFFER 10	59339	3/31/21
↓ 7	60476	7/31/21
↓ 2	58293	12/31/20

*Workgroup documentation must include the lot number(s) of all disposable vessels used for volumetric measurements.

Comments: _____

METEORIC WATER MOBILITY TEST

ACZ Laboratories, Inc.

2773 Downhill Drive

Steamboat Springs, CO 80487

Workgroup Number: WG494001

Analyst: **GKH**

Date:

Start Time: **3/26/20 10a**

End Time: **3/27/20 5p**

Loaded Sample Wet Weight

Sx Number	Sx Wet Weight (g)
L57215-17	5061
L57215-18	5066
L57215-19	5115
L57215-20	5198
L57217-01	5209
L57217-02	5201
L57217-03	5089
L57217-04	5105
L57217-05	5605

H2O rate start: 3.5mL/Min

H2O rate finish: 3.5mL/Min

Filter Type/pore size: .45um

Special Comments:

Dry Weight Calculations

Sx Number	Sx Weight (g) (From above)	(x)	% Solid	=	Dry Sx Weight (g)	+	Cubetainer Weight (g)	=	Target Leachate & Cubtainer Wt (g)
L57215-17	5061	x	0.987960693	=	5000.069067	+	140.6	=	5140.66907
L57215-18	5066	x	0.98697517	=	5000.016212	+	136.3	=	5136.31621
L57215-19	5115	x	0.977709773	=	5000.985489	+	139.2	=	5140.18549
L57215-20	5198	x	0.96197051	=	5000.322712	+	140	=	5140.32271
L57217-01	5209	x	0.959916368	=	5000.204361	+	136.8	=	5137.00436
L57217-02	5201	x	0.961455847	=	5000.531862	+	141.4	=	5141.93186
L57217-03	5089	x	0.982697941	=	5000.949824	+	138.9	=	5139.84982
L57217-04	5105	x	0.979556121	=	5000.633999	+	138.9	=	5139.534
L57217-05	5605	x	0.892226043	=	5000.926971	+	138	=	5138.92697

Final Leachate Weight

Sx Number	Actual Leachate & Cubetainer	-	Cubetainer Wt (g)	=	Final Leachate Volume (mL)
L57215-17	5163.4	-	140.6	=	5022.8
L57215-18	5137.3	-	136.3	=	5001
L57215-19	5143	-	139.2	=	5003.8
L57215-20	5144.5	-	140	=	5004.5
L57217-01	5156.6	-	136.8	=	5019.8
L57217-02	5171.2	-	141.4	=	5029.8
L57217-03	5151.4	-	138.9	=	5012.5
L57217-04	5142	-	138.9	=	5003.1
L57217-05	5180.3	-	138	=	5042.3

Comments:

Qualtrax ID: 1220

Revision: 2

Page 242 of 251

METEORIC WATER MOBILITY TEST

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487

Analyst: GKH
Date: _____
Start Time: 3/26/20 10a
End Time: 3/27/20 5p

Workgroup Number: WG494001

Feed Moisture

Sx Number	Pan Weight (g)	Wet Sx + Pan Weight (g)	Dry Sx + Pan Weight (g)	% Solid	% Feed Moisture
L57215-17	151.34	653.03	646.99	98.79606929	1.203930714
L57215-18	141.45	649.71	643.09	98.69751702	1.302482981
L57215-19	150.63	657.13	645.84	97.7709773	2.229022705
L57215-20	137.29	638.48	619.42	96.19705102	3.802948981
L57217-01	160.74	662.94	642.81	95.9916368	4.008363202
L57217-02	150.48	653.28	633.9	96.14558473	3.854415274
L57217-03	146.19	654.8	646	98.26979414	1.730205855
L57217-04	146.72	649.56	639.28	97.95561212	2.044387877
L57217-05	145.48	648.57	594.35	89.22260431	10.77739569

Screening-Particle Size

Sx Number	Sx Weight (g)	Sx > 5 cm (g)	Sx < 5 cm (g)	%Sx > 5cm	%Sx < 5cm
L57215-17	8129.39	728.88	7400.51	8.965986378	91.03401362
L57215-18	7214.84	225.15	6989.69	3.120651324	96.87934868
L57215-19	5115	0	5115	0	100
L57215-20	7167.47	630.38	6537.09	8.79501414	91.20498586
L57217-01	5828.2	470.56	5357.64	8.073847843	91.92615216
L57217-02	160.74	0	160.74	0	100
L57217-03	150.48	0	150.48	0	100
L57217-04	146.19	0	146.19	0	100
L57217-05	7868.14	225.64	7642.5	2.867767986	97.13223201

Residual Moisture

Sx Number	Pan Weight (g)	Wet Sx + Pan Weight (g)	Dry Sx + Pan Weight (g)	% Solid	% Res. Moisture
L57215-17	71.92	327.43	314.83	95.06868616	4.931313843
L57215-18	73.65	319.29	298.29	91.45090376	8.549096238
L57215-19	73.03	359.34	325.22	88.08284726	11.91715274
L57215-20	77.51	312.21	286.96	89.241585	10.758415
L57217-01	75.79	387.87	358.43	90.5665214	9.433478595
L57217-02	79.01	392.41	344.19	84.61391193	15.38608807
L57217-03	75.84	361.14	336.55	91.38100245	8.618997546
L57217-04	70.77	314.43	289.86	89.91627678	10.08372322
L57217-05	72.62	265.78	226.96	79.90267136	20.09732864

Time and Temperature for Residual Moisture: 48Hr @105c

Sample Description: Sand/ Swmall-Mid sized aggregate

Centrifuge or pre-filter? No

Observation of changes: N/A

Storage Conditions of "as rec" sample: Room

Meteoritic Water Mobility

QC List Type: I-X-MWME
QCListMatClass: SOLID
Bench Sheet List: I-RFA-CN-FREE
QC Ref: CSTD3X-PBS-LFB-MSX2
Group ID: SP-G-MWMT
Method Ref: ASTM E2242-13
SOP Ref: SOPSO036

WG494001

ACZ Laboratories, Inc

Instrument ID: SOILSPREP
Analyst:
ACZ Dept: 20
Create Date: 03/20/2020 10:11
Start Date/Time:
End Date/Time:



SE Q	ACZ ID	Client ID	SubSX	Pri	Analysis Date	Particle Size over 5 cm (%)	Extraction pH (units)	Extraction Temperature (C)	Pre Filter pH (units)	Post Filter pH (units)	Dry Weight (g)	Leachate Volume (mL)	Retained Moisture (%)	Time In	Time Out	Extraction Time (hrs)	Temperature (C)
1	WG494001CSTD1	NONE					10.05		10.06								21.6
2	WG494001CSTD2	NONE					6.97		6.99								21.4
3	WG494001CSTD3	NONE					2.07		2.07								21.4
4	WG494001ICV	PCN58541					3.95		3.99	4.04							21.8
5	WG494001PBS	NONE					5.06	23	5.33	5.54							20.4
6	L57215-17	WRSB228_0.5-3							7.16	7.24							20.2
7	L57215-17MS1	MS200120-3															
8	L57215-17MSD1	MS200120-3															
9	L57215-17MS2	II200302-4															
10	L57215-17MSD2	II200302-4															
11	L57215-18	WRSB228-FD_0.5-3							7.27	7.32							20.2
12	L57215-19	WRSB228_6-15							7.35	7.41							20.0
13	L57215-20	WRSB227_0.5-3							7.43	7.49							20.0
14	L57217-01	WRSB227-FD_0.5-3							7.76	7.78							19.7
15	WG494001CCV1	PCN58541					4.02		4.04	4.03							21.2
16	L57217-02	WRSB227_6-15					5.06	23	8.36	8.54							20.2
17	L57217-03	WRSB233_0.5-3							8.26	8.4							20.2
18	L57217-04	WRSB233_6-15							8.95	8.92							20.4
19	L57217-05	WRSB237_0.5-3							8.52	8.53							20.3
20	WG494001LFB1	II200302-4															
21	WG494001LFB2	MS200120-3															
22	WG494001CCV2	PCN58541					4.00		4.05	4.03							21.2

Report Comments:

Internal Comments

AREV:

SREV:

Initials, Date

Initials, Date

Meteoritic Water Mobility

QC List Type: I-X-MWME

QCListMatClass: SOLID

Bench Sheet List: I-RFA-CN-FREE

QC Ref: CSTD3X-PBS-LFB-MSX2

Group ID: SP-G-MWMT

Method Ref: ASTM E2242-13

SOP Ref: SOPSO036

WG494001



ACZ Laboratories, Inc

Instrument ID: SOILSPREP

Analyst:

ACZ Dept: 20

Create Date: 03/20/2020 10:11

Start Date/Time:

End Date/Time:

Sample	Login Comments
L57215-17	BUCKET II Soils hallway
L57215-17MS1	ICPMS Spike
L57215-17MS2	ICP Spike
L57215-17MSD1	ICPMS Spike
L57215-17MSD2	ICP Spike
L57215-18	BUCKET II Soils hallway
L57215-19	BUCKET II Soils hallway
L57215-20	BUCKET II Soils hallway
L57217-01	BUCKET II Soils hallway
L57217-02	BUCKET II Soils hallway
L57217-03	BUCKET II Soils hallway
L57217-04	BUCKET II Soils hallway
L57217-05	BUCKET II Soils hallway
WG494001CCV1	pH QC
WG494001CCV2	pH QC
WG494001CSTD1	pH QC
WG494001CSTD2	pH QC
WG494001CSTD3	pH QC
WG494001ICV	pH QC
WG494001LFB1	ICP LFB
WG494001LFB2	ICPMS LFB

Report Comments:

Internal Comments

AREV:

Initials, Date

SREV:

Initials, Date

WG494001

Date Reported: 07-Apr-20
Run ID: R1776152
Date Analyzed: 26-Mar-20
ICAL Workgroup:
Instrument ID: SOILSPREP

WG494001ICV			Tag:		Measured: 3/26/2020 2:25:42 PM							
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			3.95		
SREV	POST FILTER PH	TEXT		1		units	NEED			4.04		
SREV	PRE FILTER PH	TEXT		1		units	NEED			3.99		
SREV	TEMPERATURE	PREP	21.8	1		C	NEED	0.1	0.1			

WG494001PBS			Tag:		Measured: 3/26/2020 3:54:16 PM							
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	0000001164	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5012.9	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			5.54		
SREV	PRE FILTER PH	TEXT		1		units	++			5.33		
SREV	TEMPERATURE	PREP	20.4	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

L57215-17			Tag:		Measured: 3/26/2020 5:22:50 PM							
Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	27.16667	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	5022.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	8.97	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			7.24		
SREV	PRE FILTER PH	WVMT-96		1		units	++			7.16		
SREV	RETAINED MOISTURE	WVMT-96		1		%	++			4.93		
SREV	TEMPERATURE	WVMT-96	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

L57215-17MS1

Tag:

Measured: 3/26/2020 6:51:24 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666861	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5022.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	8.97	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			7.24		
SREV	PRE FILTER PH	TEXT		1		units	++			7.16		
SREV	RETAINED MOISTURE	TEXT		1		%	++			4.93		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-17MSD1

Tag:

Measured: 3/26/2020 8:19:58 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666861	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5022.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	8.97	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			7.24		
SREV	PRE FILTER PH	TEXT		1		units	++			7.16		
SREV	RETAINED MOISTURE	TEXT		1		%	++			4.93		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-17MS2

Tag:

Measured: 3/26/2020 9:48:32 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	6666666861	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5022.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	8.97	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			7.24		
SREV	PRE FILTER PH	TEXT		1		units	++			7.16		
SREV	RETAINED MOISTURE	TEXT		1		%	++			4.93		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-17MSD2

Tag:

Measured: 3/26/2020 11:17:06 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	36666666861	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5022.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	PREP	8.97	1		%	++					
SREV	POST FILTER PH	TEXT		1		units	++			7.24		
SREV	PRE FILTER PH	TEXT		1		units	++			7.16		
SREV	RETAINED MOISTURE	TEXT		1		%	++			4.93		
SREV	TEMPERATURE	PREP	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	5000	1		g	++					

L57215-18

Tag:

Measured: 3/27/2020 12:45:40 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	25	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	5001	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	3.12	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			7.32		
SREV	PRE FILTER PH	WMT-96		1		units	++			7.27		
SREV	RETAINED MOISTURE	WMT-96		1		%	++			8.55		
SREV	TEMPERATURE	WMT-96	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

L57215-19

Tag:

Measured: 3/27/2020 2:14:14 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WMT-96		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	WMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WMT-96	26.5	1		hrs	++					
SREV	LEACHATE VOLUME	WMT-96	5003.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WMT-96	0	1		%	++					
SREV	POST FILTER PH	WMT-96		1		units	++			7.41		
SREV	PRE FILTER PH	WMT-96		1		units	++			7.35		
SREV	RETAINED MOISTURE	WMT-96		1		%	++			11.92		
SREV	TEMPERATURE	WMT-96	20.0	1		C	++	0.1	0.1			
SREV	TIME IN	WMT-96		1			++					
SREV	TIME OUT	WMT-96		1			++					
SREV	WEIGHT, DRY	WMT-96	5000	1		g	++					

L57215-20

Tag:

Measured: 3/27/2020 3:42:48 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WWM-T-96		1		units	++			5.06	TA	
SREV	EXTRACTION TEMPERATURE	WWM-T-96	23.0	1		C	++	0.1	0.1		TA	
SREV	EXTRACTION TIME	WWM-T-96	25.91667	1		hrs	++				TA	
SREV	LEACHATE VOLUME	WWM-T-96	5004.5	1		mL	++				TA	
SREV	PARTICLE SIZE OVER 5 CM	WWM-T-96	8.8	1		%	++				TA	
SREV	POST FILTER PH	WWM-T-96		1		units	++			7.49	TA	
SREV	PRE FILTER PH	WWM-T-96		1		units	++			7.43	TA	
SREV	RETAINED MOISTURE	WWM-T-96		1		%	++			10.76	TA	
SREV	TEMPERATURE	WWM-T-96	20.0	1		C	++	0.1	0.1		TA	
SREV	TIME IN	WWM-T-96		1			++				TA	
SREV	TIME OUT	WWM-T-96		1			++				TA	
SREV	WEIGHT, DRY	WWM-T-96	5000	1		g	++				TA	

L57217-01

Tag:

Measured: 3/27/2020 5:11:22 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WWM-T-96		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	WWM-T-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WWM-T-96	27.91667	1		hrs	++					
SREV	LEACHATE VOLUME	WWM-T-96	5019.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WWM-T-96	8.07	1		%	++					
SREV	POST FILTER PH	WWM-T-96		1		units	++			7.78		
SREV	PRE FILTER PH	WWM-T-96		1		units	++			7.76		
SREV	RETAINED MOISTURE	WWM-T-96		1		%	++			9.43		
SREV	TEMPERATURE	WWM-T-96	19.7	1		C	++	0.1	0.1			
SREV	TIME IN	WWM-T-96		1			++					
SREV	TIME OUT	WWM-T-96		1			++					
SREV	WEIGHT, DRY	WWM-T-96	5000	1		g	++					

WG494001CCV1

Tag:

Measured: 3/27/2020 6:39:56 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			4.02		
SREV	POST FILTER PH	TEXT		1		units	NEED			4.03		
SREV	PRE FILTER PH	TEXT		1		units	NEED			4.04		
SREV	TEMPERATURE	PREP	21.2	1		C	NEED	0.1	0.1			

L57217-02

Tag:

Measured: 3/27/2020 8:08:30 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WWM-T-96		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	WWM-T-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WWM-T-96	28.16667	1		hrs	++					
SREV	LEACHATE VOLUME	WWM-T-96	5029.8	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WWM-T-96	0	1		%	++					
SREV	POST FILTER PH	WWM-T-96		1		units	++			8.54		
SREV	PRE FILTER PH	WWM-T-96		1		units	++			8.36		
SREV	RETAINED MOISTURE	WWM-T-96		1		%	++			15.39		
SREV	TEMPERATURE	WWM-T-96	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	WWM-T-96		1			++					
SREV	TIME OUT	WWM-T-96		1			++					
SREV	WEIGHT, DRY	WWM-T-96	5000	1		g	++					

L57217-03

Tag:

Measured: 3/27/2020 9:37:04 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	27.41667	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	5012.5	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			8.11		
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.26		
SREV	RETAINED MOISTURE	WVMT-96		1		%	++			8.62		
SREV	TEMPERATURE	WVMT-96	20.2	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

L57217-04

Tag:

Measured: 3/27/2020 11:05:38 AM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	27.91667	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	5003.1	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	0	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			8.92		
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.95		
SREV	RETAINED MOISTURE	WVMT-96		1		%	++			10.08		
SREV	TEMPERATURE	WVMT-96	20.4	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

L57217-05

Tag:

Measured: 3/27/2020 12:34:12 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	WVMT-96		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	WVMT-96	23.0	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	WVMT-96	28.91667	1		hrs	++					
SREV	LEACHATE VOLUME	WVMT-96	5042.3	1		mL	++					
SREV	PARTICLE SIZE OVER 5 CM	WVMT-96	2.87	1		%	++					
SREV	POST FILTER PH	WVMT-96		1		units	++			8.53		
SREV	PRE FILTER PH	WVMT-96		1		units	++			8.52		
SREV	RETAINED MOISTURE	WVMT-96		1		%	++			20.10		
SREV	TEMPERATURE	WVMT-96	20.3	1		C	++	0.1	0.1			
SREV	TIME IN	WVMT-96		1			++					
SREV	TIME OUT	WVMT-96		1			++					
SREV	WEIGHT, DRY	WVMT-96	5000	1		g	++					

WG494001LFB1

Tag:

Measured: 3/27/2020 2:02:46 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	0000001164	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5012.9	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			5.54		
SREV	PRE FILTER PH	TEXT		1		units	++			5.33		
SREV	TEMPERATURE	PREP	20.4	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

WG494001LFB2

Tag:

Measured: 3/27/2020 3:31:20 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	++			5.06		
SREV	EXTRACTION TEMPERATURE	REG	23	1		C	++	0.1	0.1			
SREV	EXTRACTION TIME	PREP	0000001164	1		hrs	++					
SREV	LEACHATE VOLUME	PREP	5012.9	1		mL	++					
SREV	POST FILTER PH	TEXT		1		units	++			5.54		
SREV	PRE FILTER PH	TEXT		1		units	++			5.33		
SREV	TEMPERATURE	PREP	20.4	1		C	++	0.1	0.1			
SREV	TIME IN	DATE		1			++					
SREV	TIME OUT	DATE		1			++					
SREV	WEIGHT, DRY	PREP	0	1		g	++					

WG494001CCV2

Tag:

Measured: 3/27/2020 4:59:54 PM

Status	Parm_Stored	Type	Value	Dil	Qual	Units	Appv	MDL	PQL	Text Value	Ext Qual	Signal
SREV	EXTRACTION PH	TEXT		1		units	NEED			4		
SREV	POST FILTER PH	TEXT		1		units	NEED			4.03		
SREV	PRE FILTER PH	TEXT		1		units	NEED			4.05		
SREV	TEMPERATURE	PREP	21.2	1		C	NEED	0.1	0.1			